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By PAUL G. CRAIG

The Economy of the Eighties—A Preview

History conditions the future. And for those who study it carefully, it casts at least a dim light down the dark trail ahead. The popular image of the 1970s is one of a decade everyone was glad to see ended. Plagued by inflation, government regulation, energy problems, and international tensions, it is a decade to which many will say "good riddance." But be cautious in your rejection of a rather tired old decade; it may have been better than you think, and its problems may give insight into the 1980s.

The 1970s—Framework for the 1980s

The 1970s were not entirely bad. Industrial production increased by 37 percent; employment increased by 24 percent; and real (price adjusted) GNP increased by 32 percent. Even per capita real GNP increased 19 percent. In terms of gross indicators of output, we did not do too badly in the decade. And we may be hard pressed to do better in the 1980s.

There are two facets to the negative feelings about the 1970s. First, although economic output, by any measure, expanded substantially, it failed by a large margin to equal the magnificent gains of the 1960s. On both an aggregate and a per capita basis, the economic growth of the 1960s was 50 percent higher than that of the 1970s. That is quite a let down! Second, the 1970s decade was filled with cultural, social, technical, and political changes that fundamentally transformed our society. It is not an exaggeration to assert that we became collectively disoriented and frightened.

Americans are confronted with the paradox that never has the average person had so much and, at the same time, not in a generation has there been such a sense of malaise. These indeed seem both the best and the worst of times.

The Major Features of the 1970s

Each observer is likely to have a slightly different perspective on our recent past. At a New Year's Eve party, the game of debating "What was the most significant event or change of the 1970s?" resulted in three leading contenders: the women's movement, the energy crisis, and inflation. I would concur and place them in that order. But I would add several significant related developments: the changed age-mix of the population—the baby boom grew up; the impact of an extensive array of government-imposed environmental regulations; the maturing of the Great Society egalitarian movement and its effect on government spending—from the mid-sixties to 1979, government's share of the economy (GNP) grew from 27 percent to 33 percent; the decline in personal savings rates—from 6 percent of disposable income in the 1960s to a little over 3 percent by the end of 1979; and the decline in productivity in virtually all areas of business and industry.

Surely these and many other events are closely related and intertwined. Just which ones may have caused the others is not entirely clear. But to an economist, the bottom line is that growth has stagnated and inflation has accelerated. This may explain the paradox mentioned earlier—i.e., a decade of substantial economic growth associated with widespread feelings of unease. Although the total decade came off reasonably well, the last couple of years of the 1970s were marked by gradually worsening economic conditions. For 1979, declining productivity and rising inflation caused the average family to experience a small decline in real purchasing power. We open the new decade sliding into recession.

Rather than discuss the decade of the 1980s, we could dwell on a forecast of the recession of 1980. In this article,

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I pass it by, noting only that the consensus among economists is that the recession will be relatively mild, be on the road to recovery by early 1981, and have only a moderate depressing effect on inflation and interest rates. For planning purposes it is more important to assess what the recent past suggests as a likely scenario for the 1980s as a whole.

Demographics

Demographics explain a good bit about the 1970s and suggest a good bit about the 1980s. The baby boom grew up in the 1970s and went to work—all of them, male and female. The consequence was a society dominated by young adults and a changing life style associated with working women. By 1980 over one-half of all adult women were working and over 60 percent of adult women under 30 were working. The number of households increased by 17 million in a decade. Associated with these events was a dramatic drop in the projected lifetime fertility rate from 2.7 children per woman in the 1960s to 1.7 in 1979. Even though the number of women in the child-bearing age group expanded rapidly, the annual number of live births declined from 3.7 million in the late 1960s to 3.1 million in 1979.

Looking backward, these demographics illuminate much about the 1970s. They gave us the highest rate of growth in the labor force since the 1920s, about 2.5 percent per year compounded. That enabled us to have relatively high economic growth even though our record on productivity was deteriorating. They gave us unusually strong demand for housing and increased the share of GNP devoted to residential construction. And, of course, there were increased expenditures for shopping centers and the other forms of social infrastructure (sewers, water, streets, etc.) related to housing. They gave us a lower savings rate. The 20 to 35 age group increased from about one-fourth of the population to almost one-third of the population. This age group traditionally has a low savings rate and high debt. They are establishing households and acquiring their first set of household goods. All of these events contributed to the scarcity of capital, lower productivity growth, and increasing inflation.

The Environment and Natural Resources

If we consider the biosphere's capacity to absorb and dilute waste (pollution) as a kind of natural resource, then both environmental protection regulation and energy scarcities are evidence of a declining natural resource base. Government enforcement of environmental regulation may be inept, too stringent, and too fast, but few would challenge the necessity to take heed of an increasingly threatened environment. Likewise, OPEC may have found cartelization an effective route to rising energy prices. But few serious observers question that the world's energy

supply/demand is precarious. It may even turn out that OPEC saved us from complacency.

However one interprets environmental and energy related issues, they clearly imposed on our economy heavy burdens of technical adaptation. Our industry, our transport system, our homes, and our very life styles are being retrofitted to accommodate the new costs of energy and to meet mandated environmental standards. Approximately 20 percent of all non-residential private investment is now committed to energy and environmental adaptation. Even more than the demographic changes, these changes explain the scarcity of capital, lower productivity growth, and inflation.

Government, The Great Society, and Egalitarianism

The civil rights movement, which began in the 1950s and expanded throughout the 1960s, has transformed the social, political, and economic dimensions of government. Government has moved at all levels to promote equal opportunity, equal education, equal health care, and more equal housing. Between 1960 and 1979, the share of total GNP committed to government expenditures increased from 27 percent to 33 percent. During the same period defense-related expenditures declined from 8.8 percent to 4.6 percent of GNP. Thus non-defense government expenditures increased from 18.2 percent of GNP to 28.4 percent of GNP. Although many may argue that we are still an unequal society, no one can challenge the fact that there has been massive change in the scope and character of government. Most of this change has come at the expense of an increased middleclass tax burden. These events probably have also contributed to the decline in the savings rate and to inflation. They also probably explain the rising level of social tension and the disillusionment with government on the part of the middle class, who are, after all, the most articulate part of the population.

Looking Forward to the 1980s

What does so extensive a review of the 1970s tell us about our future?

In demographics a dramatic change is underway. The number of 20 year olds will peak in 1980 and decline every year until at least the year 2000. The entire population under 30 years of age will decline in the 1980s! There will be fewer persons under 30 years of age in 1990 than there are today. But the 30 to 50 age group will expand by almost 20 million. Maturity, experience, and a more conservative adult attitude will dominate. The productivity of the work force should increase with maturity. Teenage unemployment will gradually decline, and with it the often misguided government policies which tried to cope with it in the 1970s.

Some of the more expensive areas of public expenditure should slow their rates of growth or even decline. The school population will decline significantly. Crime should

decline. About 80 percent of all violent crimes are committed by persons under 25. Community mental health, alcoholism, drug abuse, and other such high cost programs should moderate in cost as the young adult population declines.

Politically, the social programs or the transfer payments launched in the 1960s and 1970s are not likely to be eliminated, nor will they be cut back (except for some possible natural demographic effects noted earlier). But the changed political mood suggests that new initiatives will be difficult to promote. Even some form of national health insurance, which probably will come, will not make significant impact. About 90 percent of all hospital expenditures are already covered by third-party payments (public or private). So, demographics offer some hope of a relative decline in government as a share of the economy.

The demographics also hold out the prospect of smaller families, a slowing of the growth rate of new households, and smaller houses. Whereas the 1970s had an increase of 17 million households, the 1980s is likely to have an increase of only 12 million. And the most common type of household in the 1980s will be a couple in their mid-to-late thirties, both working, with one or no children. That should reduce the relative importance of residential construction in the total economy. By the *late* 1980s, both the number of housing units and the size of housing units are likely to be smaller than in the 1970s.

The changed age composition and size of households should lead to a small reduction in consumer expenditures as a share of total output. This is especially likely if government policies shift to favor, rather than punish, savings.

The combined effect of a slower rate of growth in government and consumer expenditures should give a slightly higher percentage of output devoted to savings and investment, especially productivity improving industrial investment. Over the decade it is reasonable to expect private business investment as a share of GNP to grow between one and two percentage points. That would compensate for some of the adverse environmental and energy related effects on productivity which were experienced in the 1970s.

Environmental regulation is also likely to be eased. In the short run, there seems no alternative to increased use of coal and coal derivatives. That cannot be achieved without some easing of environmental restraints.

All of these adjustments should increase the rate of productivity gains. In the 1960s output per man-hour increased at over 3 percent per year compounded. In the late 1960s and early 1970s this improvement factor dropped to 2 percent per year. By 1977 and 1978 it had declined to 1 percent per year; and in 1979 productivity actually declined. It seems reasonable to expect productivity gains between 1 and 2 percent per year in the 1980s. When combined with modest growth of the labor force (perhaps a little over 1 percent per year), the effect should be to produce a real growth rate in the economy of 2.5 to 3.0 percent per year. That is less well than it did in the 1960s but about

as well as it did in the 1970s. And in the 1980s it will be done with less dependence on labor force growth *and* less population growth. Although it sounds somewhat like a slow growth decade, it adds up to over a 30 percent expansion.

GNP is produced with energy. No matter how logical the prior discussion might seem, it must be checked against energy availability. With some modest improvement in conservation (smaller cars, smaller houses, some increase in use of public transport, industrial redesign, etc.), we should be able to do more conservation. I will use as a reasonable goal, 25 percent increase in energy in the decade 1980-1990.

Best estimates of experts place 1980 energy use in the United States at about 80 quadrillion BTUs (80 quads). It is distributed by source as follows:

	Quads
Oil	
Domestic	18
Imports	19
Gas	
Domestic	18
Imports	2
Uranium	4
Hydro	4
Coal	15
TOTAL	80

A 25 percent increase in energy use requires moving to 100 quads per year. Can it be done? There are reasonable scenarios leading to an affirmative answer. There is no time for dramatic new sources in one decade. Lead times are very long in nuclear and synfuel sources. But with decontrol of prices and a not-too-punitive "windfall tax," domestic oil and gas production may be held near present levels. Oil imports can be held near present levels. If one assumes very little additional nuclear or hydro power, that puts the entire burden of 20 quads on domestic coal and gas imports. By the end of the decade, Alaskan, Canadian, and Mexican gas should be able to supply an additional 5 quads. The gas is there; the technology is available; and the policies to secure it are falling into place. More difficult, but possible, are the policies and the capital to double coal contribution from 15 to 30 quads.

A feasible energy scenario is available—absent war or chaos in the Middle East, and given government recognition of the problems to be overcome. Energy will rise in price faster than other goods and services, but not at prohibitive rates. The best guess is that by 1990 reduced size and improved fuel efficiency will almost offset price increases for gasoline so that the real cost of driving a car will be no greater than in 1980 *and* that auto operation will be a smaller share of family income than it is today.

In spite of the problems and without divine intervention we should continue to be a society getting richer. We

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will become a society and a market dominated by affluent adults. The growth should be spread widely among the capital goods industries that build the tools to achieve the needed environmental and energy transformations. Wealthy adults will indulge in ever more expensive consumer durables that entertain them and do their work for them. And they will travel, recreate, and expand their use of purchased services. Only non-durable soft goods are likely to lag—these adults will have few children to feed or clothe.

What the 1980s promise is a further expansion of the middle class capable of emulating the upper classes. Homes and cars will be smaller and more fuel efficient. They also

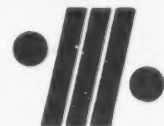
will be more luxurious. But our basic patterns of living will not be strange and different. By the end of this century we probably will need major technical breakthroughs to maintain our standard of living. But for one more decade we can get by with a lowered birth rate and a little tinkering with existing technologies and resources.

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BULLETIN OF BUSINESS RESEARCH STATISTICAL SUMMARY

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Business Conditions in Ohio and the United States

ITEM	OHIO					UNITED STATES				
	Unit or Index Base Period	Jan. 1980 (p)	Dec. 1979 (r)	CHANGE FROM		Unit or Index Base Period	Jan. 1980 (p)	Dec. 1979 (r)	CHANGE FROM	
				Last Month	Last Year				Last Month	Last Year
				Jan. 1980 from Dec. 1979	Jan. 1980 from Jan. 1979				Jan. 1980 from Dec. 1979	Jan. 1980 from Jan. 1979
GENERAL BUSINESS				%	%				%	%
• Bank Debits ^{1, 11}	1967 ¹ Number	n.a.	n.a.	n.a.	n.a.	Bil. \$ Ex. NY ^{4, h} Number	n.a.	n.a.	n.a.	n.a.
• Commercial Failures—Number ¹²	Thous. Dol. 1967	n.a.	n.a.	n.a.	n.a.	Thous. Dol. 1967	n.a.	n.a.	n.a.	n.a.
• Commercial Failures—Liabilities ¹²										
• Life Insurance Sales ⁵		289	364	- 21	+ 13		312	412	- 24	+ 15
INCOME										
• Total Personal Income ^{1, 12}	Mil. Dol. d. h	98,583	98,015	+ 1	+ 9	Bil. Dol. d. h	2,045	2,028	+ 1	+ 11
• Salaries & Wages Income ^{7, 13}	Mil. Dol. d. h			- 1	- x	Bil. Dol. d. h	1,291	1,283	+ 1	+ 10
• Nonagricultural Income ¹⁴	b	b	b	b	b	Bil. Dol. d. h	1,995	1,976	+ 1	+ 12
• Employee Earn.—Gross Wkly.: Mfg. ^{14, 15}	Dollars	331.30	343.09	- 3	+ 2	Dollars	277.31	285.36	- 3	+ 7
• " " Const. ^{14, 15}	Dollars	437.34	437.21	+ x	+ 11	Dollars	334.50	354.68	- 6	+ 8
• Agr. Income (Cash Mkts.) ^{16, 17}	1957-59	n.a.	n.a.	n.a.	n.a.	1967	n.a.	n.a.	n.a.	n.a.
EMPLOYMENT & UNEMPLOYMENT										
• Civilian Labor Force ^{4, 15}	Thousands	4,994	5,110	- 2	- x	Thousands	103,188	103,884	- 1	+ 2
• Civilian Employment ^{4, 15}	Thousands	4,645	4,842	- 4	- x	Thousands	96,145	98,047	- 2	+ 2
• Nonagricultural Employment ^{14, 15}	Thousands	4,413	4,534	- 3	+ x	Thousands	93,363	95,052	- 2	+ 2
• Mfg. Prod. Employment ^{7, 15}	1967	76	78	- 2	- 9	1967	103	104	- 1	- 1
• Mfg. Prod. Payroll ^{7, 15}	1967	173	184	- 6	- 8	1967	248	259	- 4	+ 5
• Average Weekly Hours—Mfg. Prod. ^{7, 15}	Number	40.7	42.2	+ 4	+ 4	Number	39.9	41.0	+ 21	+ 10
• Unemployment, Total—No. ^{14, 15}	Thousands	349	268	+ 30	+ 5	Thousands	7,043	5,836	- 3	- x
• Unemployment, Total—Rate ^{14, 15}	Percent	7.0	5.2			Percent	6.8	5.6		
• Unemployment, Insured ^{14, 15}	Thousands	205	159	+ 29	+ 53	Thousands	n.a.	n.a.	n.a.	n.a.
• Registered for Work, O.B.E.S. ¹⁴	Thousands	351	335	+ 5	+ 12	b	b	b	b	b
• Unemployment Compensation Fund ¹⁴	Mil. Dol.	435	503	- 14	+ 3	b	b	b	b	b
PRODUCTION										
• Gross National Product (Quarterly) ¹³	1967	b	b	b	b	Bil. Dol. d. h	n.a.	n.a.	n.a.	n.a.
• Industrial Production ^{7, 11}	1967 ¹	c	c	- 6	- 13	1967 ⁴	153	152	+ x	+ 1
• Steel Production ¹⁵	Thous. Tons	1,521	1,419	+ 7	- 15	Thous. Tons	10,701	9,996	+ 7	- 4
• Electric Power Production ⁸	1967 ¹	n.a.	n.a.	n.a.	n.a.	Mil. KWH	n.a.	n.a.	n.a.	n.a.
• Bituminous Coal Production ¹⁰	Thous. Tons	3,392	3,385	+ x	+ 4	Thous. Tons	65,880	60,319	+ 9	+ 17
• Pig Iron Production ¹⁰	Thous. Tons	992	974	+ 2	- 15	Thous. Tons	6,583	6,372	+ 3	- 1
• Machine Tools—Shipments ²⁰	b	b	b	b	b	Mil. Dol.	n.a.	391.05	n.a.	n.a.
• Machine Tools—New Orders ²⁰	b	b	b	b	b	Mil. Dol.	n.a.	392.35	n.a.	n.a.
• Durable Goods—New Orders ¹³	b	b	b	b	b	Mil. Dol. d	81,495	77,751	+ 5	+ 2
CONSTRUCTION (Value of Contracts)										
• Total (Seas. Adj.) ^{9, 21}	1967 ⁴					1967 ⁴				
• Total ^{9, 21}	1967 ¹	117	135	- 14	- 9	Mil. Dol.	11,080	10,513	+ 5	- 6
• Residential Building ^{9, 21}	1967 ¹	90	107	- 16	- 6	Mil. Dol.	4,100	4,304	- 5	- 9
• Nonresidential Building ^{9, 21}	1967 ¹	114	116	- 2	- 31	Mil. Dol.	4,352	3,559	+ 22	+ 10
• Utilities and Non-Building Const. ^{9, 21}	1967 ¹	188	251	- 25	+ 75	Mil. Dol.	2,628	2,651	- 1	- 20
DISTRIBUTION										
• Total Retail Sales ^{2, 13}	1957-59 ⁴	293	278	+ 5	+ 6	Mil. Dol. d	78,545	76,809	+ 2	+ 11
• Department Store Sales ^{2, 13}	1957-59 ⁴	218	285	- 23	- 5	Mil. Dol. d	7,814	7,395	+ 6	+ 15
• New Passenger Cars Registered ^{3, 22}	1967	94	84	+ 13	- 1	No.-49 sts.	749,505	831,319	- 10	- 1
• New Trucks Registered ^{3, 22}	No.-43 cos.	4,699	4,713	- x	- 32	b	n.a.	265,235	n.a.	n.a.
• Used Cars Registered ³	No.-53 cos.	30,552	25,623	+ 19	+ 14	b	b	b	b	b
PRICES										
• Consumer Price Index ¹³ :						1967	233	230	+ 1	+ 14
• All Urban Consumers	b	b	b	b	b	1967	233	230	+ 1	+ 14
• Wage Earners & Clerical Workers	b	b	b	b	b					
• Producer Price Index ¹³ :						1967	255	249	+ 2	+ 15
• All Commodities	b	b	b	b	b	1967	232	228	+ 2	+ 13
• Finished Goods	b	b	b	b	b	1967	266	258	+ 3	+ 18
• Intermediate Materials	b	b	b	b	b	1967	297	297	+ x	+ 14
• Crude Materials	b	b	b	b	b	1967	316	310	+ 2	+ 22
• Sensitive Indus. Commodities ¹³	b	b	b	b	b					
BANKING AND FINANCE										
• Bank Loans, Large Banks—Total ¹¹	Mil. Dol.	24,378	23,529	+ 4	+ 17	Mil. Dol.	409,652	404,898	+ 1	+ 17
• " " " " Bus. & Agric. ¹¹	Mil. Dol.	8,845	8,608	+ 3	+ 19	Mil. Dol.	161,967	159,533	+ 2	+ 19
• Stock Price Index—400 Indust. ²³	b	b	b	b	b	1941-43 = 10	124.9	121.4	+ 3	+ 13
• " " " " 40 Utils. ²³	b	b	b	b	b	1941-43 = 10	50.6	50.7	- x	+ 1
• " " " " 20 Utils. ²³	b	b	b	b	b	1970 = 10	15.3	15.2	+ 1	+ 13
• Yield, Corp. AAA Bonds ²³	b	b	b	b	b	Percent	10.86	10.55	+ 3	+ 17

* Indicates series charted (page S-1). For sources and footnotes, see page S-3.

Business Conditions in the 8 Largest OHIO CITIES

ITEM	Unit or Index Base Period	CHANGE FROM LAST YEAR			CHANGE FROM LAST YEAR			CHANGE FROM LAST YEAR			CHANGE FROM LAST YEAR																																												
		Jan. 1980	Dec. 1979	Jan. 1980 from Jan. 1979	Jan. 1980	Dec. 1979	Jan. 1980 from Jan. 1979	Jan. 1980	Dec. 1979	Jan. 1980 from Jan. 1979	Jan. 1980	Dec. 1979	Jan. 1980 from Jan. 1979																																										
		(p)	(r)		(p)	(r)		(p)	(r)		(p)	(r)																																											
AKRON														CANTON														CINCINNATI														CLEVELAND													
%														%														%														%													
Number Employed ¹ :																																																							
Total*	1967	83	86	- 2													93	94	- 4													77	79	- 6													90	91	- 3						
Manufacturing	"	59	61	- 10													85	83	- 7													67	68	- 16													73	73	- 9						
Trade, Serv., & Utils.	"	114	120	+ 4													109	112	+ 1													87	88	+ 1													110	110	+ 1						
Construction	"	55	67	+ 4													73	80	- 8													73	87	+ 4													67	78	+ 2						
Payrolls ² :																																																							
Total*	"	173	184	+ 1													234	228	- x													199	212	- 6													204	211	- 2						
Manufacturing	"	127	133	- 7													210	198	- 8													159	174	- 19													156	166	- 16						
Trade, Serv., & Utils.	"	268	284	+ 9													304	309	+ 6													254	263	+ 5													272	270	+ 10						
Construction	"	120	153	+ 12													176	182	+ 12													179	211	+ 15													180	210	+ 18						
Emp. Earn.—Gross Wkly. ³ :																																																							
All Industries*	\$	316.75	322.14	+ 5													328.74	317.34	+ 3													299.51	311.51	- x													351.01	361.08	+ 1						
Manufacturing	"	370.14	376.30	+ 4													363.43	346.96	+ 2													323.61	344.62	- 3													365.73	389.60	- 7						
Trade, Serv., & Utils.	"	241.80	245.00	+ 5													258.50	255.43	+ 4													261.89	266.76	+ 1													321.69	318.52	+ 9						
Construction	"	415.45	435.20	+ 8													470.81	437.85	+ 11													429.39	425.20	+ 10													491.94	495.95	+ 16						
Retail Sales ⁴	%	c	c	+ 14													c	c	+ 9													c	c	+ 3													c	e	+ 5						
Auto Titles ⁵ :																																																							
New Cars	No.	n.a.	n.a.	n.a.													n.a.	n.a.	n.a.													4,390	3,626	- 3													6,120	5,699	- 8						
New Trucks	"	n.a.	n.a.	n.a.													n.a.	n.a.	n.a.																												714	659	- 31						
Retail Food Prices ¹⁰	1967	b	b	b													b	b	b													254	255	+ 6													246	246	+ 6						
Bank Debts ⁶	1967 ¹	n.a.	n.a.	n.a.													n.a.	n.a.	n.a.													n.a.	n.a.	n.a.													n.a.	n.a.	n.a.						
Commercial Failures ¹² :																																																							
Failures	No.	n.a.	n.a.	n.a.													n.a.	n.a.	n.a.													n.a.	n.a.	n.a.													n.a.	n.a.	n.a.						
Liabilities	Thous. \$	n.a.	n.a.	n.a.													n.a.	n.a.	n.a.													n.a.	n.a.	n.a.													n.a.	n.a.	n.a.						
Indus. Power Consump. ⁴	1967 ¹	120	136	- 11													b	b	b													b	b	b													b	b	b						
Value of Bldg. Const. ⁷ :																																																							
Total	"	104	84	- 19													78	43	- 55													143	156	- 13													45	46	- 53						
Residential	"	54	54	+ 236													58	57	+ y													94	168	+ 59													35	36	- 41						
Nonresidential	"	154	115	- 36													101	26	- 73													187	145	- 28													54	55	- 58						
Steel Production ¹⁸	1967 ²	b	b	b													b	b	b																																				
Labor Force Estimates ¹⁴ :																																																							
Civilian Labor Force	Thous.	242	246	+ 1													172	174	+ 2													418	443	- 2													735	764	- 2						
Civilian Employment	"	225	233	- x													160	164	+ 2													395	424	- 1													693	727	- 2						
Unemp. Total—No.	"	17.4	13.1	+ 8													11.9	9.9	+ 3													23.4	19.8	- 13													42.2	36.0	+ 3						
Unemp., Total—Rate	%	7.2	5.3														6.9	5.7														5.6	4.5														5.7	4.7							
COLUMBUS														DAYTON														TOLEDO														YOUNGSTOWN													
%														%														%														%													
Number Employed ¹ :																																																							
Total*	1967	106	113	- 1													105	108	- 1													97	100	- 6													84	87	- 3						
Manufacturing	"	74	75	- 9													69	70	- 6													73	76	- 18													55	57	- 11						
Trade, Serv., & Utils.	"	131	142	+ 1													161	163	+ 2													122	123	+ x													123	126	+ 1						
Construction	"	63	74	+ 14													70	95	+ 14													69	84	+ 39													54	57	- 8						
Payrolls ² :																																																							
Total*	"	246	260	+ 4													210	217	+ 1													221	238	- 6													185	195	- 1						
Manufacturing	"	159	168	- 8													154	161	- 5													156	177	- 23													128	137	- 11						
Trade, Serv., & Utils.	"	335	352	+ 7													341	343	+ 6													320	326	+ 6													299	299	+ 10						
Construction	"	146	176	+ 34													164	213	+ 25													171	209	+ 57													143	154	- 8						
Emp. Earn.—Gross Wkly. ³ :																																																							
All Industries*	\$	275.76	276.89	+ 5													353.07	358.46	+ 2													330.77	344.74	+ 3													303.48	305.67	+ 2						
Manufacturing	"	334.85	345.83	+ 3													392.13	404.48	+ x													360.91	392.49	- 4													332.66	336.81	- 2						
Trade, Serv., & Utils.	"	225.08	219.45	+ 5													289.48	287.13	+ 5													280.66	283.59	+ 9													242.89	242.78	+ 9						
Construction	"	392.42	399.10	+ 18													412.29	401.31	+ 10													519.11	488.13	+ 17													488.59	490.66	- x						
Retail Sales ⁴	%	c	c	- 1													c	c	- 2													c	c	- 2													c	c	+ 5						
Auto Titles ⁵ :																																																							
New Cars	No.	3,551	3,450	- 14													2,613	2,377	- 4													2,062	1,722	+ 10													965	799	- 5						
New Trucks	"	653	570	- 29													302	324	- 44													297	314	- 37													165	119	- 1						
Retail Food Prices ¹⁰	1967	b	b	b													b	b	b													b	b	b													b	b	b						
Bank Debts ⁶	1967 ¹	n.a.	n.a.	n.a.													n.a.	n.a.	n.a.													n.a.	n.a.	n.a.													n.a.	n.a.	n.a.						
Commercial Failures ¹² :																																																							
Failures	No.	n.a.	n.a.	n.a.													n.a.	n.a.	n.a.													n.a.	n.a.	n.a.													n.a.	n.a.	n.a.						
Liabilities	Thous. \$	n.a.	n.a.	n.a.													n.a.	n.a.	n.a.													n.a.	n.a.	n.a.													n.a.	n.a.	n.a.						
Indus. Power Consump. ⁴	1967 ¹	b	b	b													b	b	b													150	141	- 9													83	88	- 12						
Value of Bldg. Const. ⁷ :																																																							
Total	"	176	156	+ 52													102	83	+ 46													67	122	- 14													43	110	- 22						
Residential	"	129	238	+ 36													29	60	- 62													107	124	- 20													39	143	- 53						
Nonresidential	"	223	74	+ 63													194	111	+ 209													46	121	- 4													46	72	+ 130						
Steel Production ¹⁸	1967 ²	b	b	b													b	b	b													b	b	b																					
Labor Force Estimates ¹⁴ :																																																							
Civilian Labor Force	Thous.	428	450	- 1													269	277	+ x													219	228	- 1													130	135	- 2						
Civilian Employment	"	408	434	+ x													251	262	- 1													200	214	- 3													118	126	- 2						
Unemp. Total—No.	"	19.9	16.6	- 12													18.2	14.1	+ 19													19.0	14.2	+ 15													11.6	8.8	+ 5						
Unemp., Total—Rate	%	4.7	3.7														6.7	5.1														8.6	6.2														8.9	6.5							

Number Employed, Payrolls, and Man-Hours in Ohio Industry

INDUSTRIAL GROUP	NUMBER EMPLOYED ¹				PAYROLLS ²				MAN-HOURS ³			
	INDEX (1967 = 100)		CHANGE		INDEX (1967 = 100)		CHANGE		INDEX (1967 = 100)		CHANGE	
	Jan. 1980	Dec. 1979	Jan. 1980 from Dec. 1979	Jan. 1980 from Jan. 1979	Jan. 1980	Dec. 1979	Jan. 1980 from Dec. 1979	Jan. 1980 from Jan. 1979	Jan. 1980	Dec. 1979	Jan. 1980 from Dec. 1979	Jan. 1980 from Jan. 1979
	(p)	(r)	%	%	(r)	(p)	%	%	(p)	(r)	%	%
Total* (2,405) ^a	87	91	- 4	- 3	194	296	- 6	- x	84	90	- 7	- 5
All Manufacturing* (1,311)	76	78	- 2	- 9	173	184	- 6	- 8	70	74	- 6	- 13
Chemicals (69)	97	96	+ x	- 2	185	211	- 12	- 12	84	93	- 10	- 13
Food Products (89)	80	82	- 3	- 2	195	205	- 5	+ 7	71	74	- 4	- 2
Bakery	71	73	- 2	+ 5	169	178	- 5	+ 16	67	71	- 5	+ 9
Miscellaneous	81	83	- 3	- 2	198	208	- 5	+ 6	71	74	- 4	- 3
Lumber Products (45)	89	91	- 2	- 13	181	188	- 3	- 4	81	83	- 3	- 12
Furniture	98	99	- 1	- 14	200	206	- 3	- 5	93	95	- 1	- 13
Miscellaneous	75	78	- 4	- 8	152	160	- 5	- 3	62	66	- 6	- 9
Machinery (304)	76	76	- x	- x	167	175	- 5	+ 5	72	75	- 4	- 3
Elec. Mach., Apparatus and Supplies	86	86	- x	+ 3	194	209	- 7	+ 6	80	85	- 6	- 1
Machine Tools	62	62	+ 1	- 3	150	148	+ 2	+ 9	66	66	+ 1	- 2
Agricultural Equipment	50	49	+ 1	- 3	118	115	+ 3	+ 11	57	57	+ x	- 3
Special Machinery and Appliances	70	71	- 1	- 4	144	150	- 4	+ 1	66	68	- 4	- 7
Metal Products (358)	83	85	- 2	- 10	190	196	- 3	- 9	74	77	- 4	- 14
Foundry Products and Drop Forgings	93	91	+ 3	- 13	223	245	- 9	- 17	76	80	- 5	- 18
Pipes, Valves, and Plumbers' Supplies	85	84	+ 1	- 3	204	220	- 7	- 6	88	95	- 6	- 14
Screw Machine Products and Hdwe.	92	95	- 2	- 7	172	183	- 6	- 7	89	96	- 7	- 13
Sheet Metal Work	84	90	- 7	- 18	178	211	- 16	- 20	68	79	- 15	- 23
Steel Works and Rolling Mills	77	77	+ x	- 6	177	167	+ 6	- 5	71	69	+ 3	- 13
Stoves and Furnaces	91	89	+ 2	- 19	188	212	- 11	- 6	95	108	- 12	- 17
Miscellaneous	80	84	- 4	- 9	184	192	- 4	- 5	70	74	- 4	- 10
Paper and Printing (139)	65	66	- 1	- 5	165	171	- 4	+ 3	61	63	- 3	- 6
Paper and Pulp	49	48	+ 1	- 1	163	161	+ 1	+ 10	41	41	+ 1	- x
Printing and Publishing	74	75	- 1	- 6	166	174	- 4	- 1	68	70	- 3	- 4
Miscellaneous	65	67	- 2	- 6	160	169	- 5	+ 1	67	71	- 5	- 8
Rubber Products (54)	66	67	- 1	- 11	161	159	+ 1	- 9	61	61	+ x	- 15
Tires and Tubes	49	50	- 2	- 6	106	107	- x	- 7	37	37	- 1	- 12
Miscellaneous	76	76	- 1	- 13	204	201	+ 1	- 11	81	80	+ 1	- 17
Stone, Clay, and Glass Products (94)	74	75	- 1	- 8	184	189	- 3	- 3	80	85	- 3	- 9
Brick and Tile	54	58	- 7	- 10	107	121	- 12	- 6	53	60	- 12	- 13
Glass	80	80	- x	- 13	187	189	- 1	- 7	81	82	- 1	- 12
Vitreous & Semi-Vit. China & Pottery	56	57	- 1	- 1	169	169	- x	+ 11	87	88	- 1	- 1
Miscellaneous	84	86	- 2	- 3	207	221	- 7	+ x	85	91	- 7	- 8
Textiles (37)	71	72	- 2	- 7	107	113	- 5	- 8	68	72	- 6	- 12
Men's Clothing	81	81	- x	- 4	106	112	- 5	- 8	69	74	- 6	- 14
Miscellaneous	65	67	- 3	- 9	112	119	- 6	- 8	68	72	- 6	- 11
Vehicles (62)	68	76	- 11	- 29	158	193	- 18	- 37	59	72	- 18	- 38
Autos and Parts	72	82	- 13	- 36	172	217	- 21	- 43	61	77	- 21	- 44
Cars, Electric and Steam Railway	115	122	- 6	+ 9	253	256	- 1	+ 9	104	107	- 2	+ 7
Miscellaneous	60	60	+ x	+ 27	132	139	- 5	+ 34	59	62	- 4	+ 21
Miscellaneous Manufacturing (60)	64	66	- 2	- 7	147	153	- 4	+ 5	61	64	- 4	- 6
Total Trade, Service, and Utilities* (717)	103	108	- 4	+ 1	234	244	- 4	+ 8	105	113	- 7	+ 2
Service (212)	119	118	+ 1	+ 4	249	243	+ 2	+ 12	131	132	- 1	+ 4
Trade, Retail and Wholesale (396)	93	102	- 9	+ x	205	225	- 9	+ 5	91	103	- 12	+ 1
Transportation & Public Utilities (109)	108	108	- x	- x	294	296	- 1	+ 7	107	108	- 1	- 2
Construction (349)	61	74	- 17	+ 9	156	187	- 17	+ 27	56	68	- 18	+ 19
Mines and Quarries (28)	124	125	- 1	- 2	264	261	+ 1	+ 7	75	77	- 2	- 3

Indexes of number employed and of payrolls are based on the employment of 506,432 persons (production workers in manufacturing and mining, construction workers in contract construction, and nonsupervisory employees in other categories) in 2,405 firms; indexes of man-hours, on the employment of 492,498 production workers and nonsupervisory employees in 2,305 firms. Figures in parentheses show number of firms reporting employment and payrolls. In some cases fewer firms report man-hours. Data do not include agriculture, government, education, or public institutions. For sources and footnotes, see below.

FOOTNOTES FOR BULLETIN TABLES AND CHARTS

¹Change in number of failures; ²Figures in parentheses show number of firms reporting this month; ³a. Current data not available; ⁴Comparable data not available; ⁵Only percentage of change available; ⁶Adjusted for seasonal change; ⁷Adjusted for number of working days; ⁸Four weeks average; ⁹Annual rate; ¹⁰Preliminary; ¹¹Revised; ¹²Series revised; ¹³Weighted; ¹⁴Less than 0.5 percent; ¹⁵More than 1,000 percent increase.

Primary Sources:

Computed from: ¹Center for Business and Economic Research multiple regression model.

Computed from original data collected by the Center for Business and Economic Research from: ²Ohio retailers; ³County Clerks of Courts; ⁴Local Power and Light Companies.

Computed by the Center for Business and Economic Research from data supplied by: ⁵Board of Governors of the Federal Reserve System;

⁶Life Insurance Marketing and Research Association; ⁷Division of Research and Statistics of the Ohio Bureau of Employment Services, collected in cooperation with the Bureau of Labor Statistics, U.S. Department of Labor; ⁸Federal Power Commission; ⁹F. W. Dodge Division, McGraw-Hill Information Systems Company; ¹⁰Dun & Bradstreet, Inc.

Other data sources: ¹¹Federal Reserve Board; ¹²Dun & Bradstreet, Inc.; ¹³U.S. Department of Commerce; ¹⁴Division of Research and Statistics of the Ohio Bureau of Employment Services; ¹⁵U.S. Department of Labor; ¹⁶Department of Agricultural Economics, O.S.U.; ¹⁷U.S. Department of Agriculture; ¹⁸American Iron and Steel Institute; ¹⁹U.S. Department of Energy; ²⁰National Machine Tool Builders' Association; ²¹F. W. Dodge Division, McGraw-Hill Information Systems Company; ²²R. L. Polk & Co.; ²³Standard & Poor's Corporation.

Note: In the Ohio-U.S. table, page S-2, dual source notes on a single line of the table stub refer first to Ohio data, second to U.S. data.

Ohio Retail Sales Trends

January Sales of Ohio Retailers were 24 percent lower than sales in December, but after seasonal adjustment the January sales index was 5 percent above the index for December. Compared with sales in January 1979, current January sales increased 6 percent.

By Kind of Business, the largest January-from-December declines (above 50 percent) occurred in those 8 lines with traditionally high seasonal buying in December—department stores, 4 apparel store categories, jewelry stores, florists, and State liquor stores. Eleven additional lines showed lesser decreases in January-from-December, and 5 categories had January-from-December increases, including a surprising +40 percent increase by paint, glass, and wallpaper stores, +10 percent by filling stations, +8 percent by motor vehicle dealers, +6 percent by other automotive dealers, and a fractional increase by drug stores. In comparisons with January 1979 sales, almost two-thirds of the individual lines experienced higher sales in January 1980, with increases ranging from +44 percent by paint, glass, and wallpaper stores to +2 percent by State liquor stores.

INDEXES OF OHIO RETAIL SALES

KIND OF BUSINESS	INDEX (1957-59 = 100)		CHANGE		
	Jan. 1980 (p)	Dec. 1979 (r)	Jan. 1980 from Dec. 1979		Jan. 1980 from Jan. 1979
			Not Seas. Adj.	Seas. Adj.	
Total Retail Stores^{2, w}	260	341	-24	+ 5	+ 6
Grocery Stores	315	345	- 9	+ 3	+11
Other Food Stores	397	478	-17	-13	+24
General Stores (With Food)	178	228	-22	+21	+37
Department Stores	167	552	-70	-23	- 5
Other General Merchandise	n.a.	n.a.	n.a.	n.a.	n.a.
Men's Clothing-Furns. Stores	123	273	-55	+ 3	- 3
Family Clothing Stores	89	225	-60	+ 3	-12
Women's Ready-to-Wear Stores	121	290	-58	-16	+ 5
Shoe Stores	92	183	-50	-16	+ 5
Furniture Stores	232	269	-14	+36	+15
Household Appl.-TV-Rdio Strs.	177	336	-47	- 2	- 4
Home Furnishings Stores	n.a.	n.a.	n.a.	n.a.	n.a.
Motor Vehicle Dealers	301	278	+ 8	+ 5	- 2
Other Automotive	123	116	+ 6	+13	- 3
Filling Stations	391	356	+10	+17	+ 5
Lumber-Bldg. Matls. Dealers	200	240	-17	-11	+ 7
Paint, Glass & Wallpaper Strs.	185	132	+40	+91	+44
Heat.-Plumb. & Elec. Sup. Strs.	222	299	-26	- 7	+31
Hardware Stores	190	258	-27	+43	- 7
Farm Equipment Dealers	n.a.	n.a.	n.a.	n.a.	n.a.
Eating and Drinking Places	196	238	-18	- 8	-11
Drug Stores	257	256	+ x	+34	+ 5
Jewelry Stores	158	649	-76	+ 3	+27
Florists	121	270	-55	- 8	-16
Fuel Dealers	192	202	- 5	- 3	-18
Hay-Feed, Farm & Grdn. Strs.	418	439	- 5	- 1	+19
State Liquor Stores	137	342	-60	+ 6	+ 2

For sources and footnotes, see page S-3.

Management Attitudes toward Productivity in the Office

The office appears to be the last corporate holdout against the tide of automation that has swept through the factory. In the age of electronic data processing and industrial automation, the office has been remarkably resistant to change. In fact, little has changed in the office since the development of the typewriter over 100 years ago. In 1975 it was estimated that capital investment for each U.S. office worker was only \$2,000 vs. \$25,000 in manufacturing and \$35,000 in agriculture.¹ Recently, however, office automation emerged and promises to revolutionize office operations. While optimistic industry leaders have forecasted a jump in the annual capital expenditures per white collar worker to \$10,000 or more by 1985, widespread acceptance of automated equipment in the office environment has been slow in occurring.²

Office automation promises to muddle management attitudes, practices, and techniques on a greater scale than did factory and plant automation. Management itself is expected to undergo considerable turmoil. For example, some suggested that management will experience the following:

- Partial skills obsolescence
- More infiltration of computer professionals
- Increased segregation of top and middle management
- Absorption of some middle management functions by top management

This article focuses its attention on the office environment and is specifically concerned with top and middle management's attitudes towards productivity within this environment. Full exploitation of present-day technology

to improve productivity calls for realignment of traditional office procedures and personnel. Given predictable human resistance to change—particularly when valued personal relationships and hard-won conveniences are thought to be threatened—it is not surprising that widespread acceptance of the new technology has not yet occurred.

Measuring Attitudes toward Office Productivity

The objective was to measure management agreement and disagreement with attitudes bearing on office productivity and, thereby, to identify within the management of major U.S. corporations the pockets of relative receptivity or resistance to the changes required for improved office productivity. To accomplish the stated objective a survey was conducted in 1979 by a questionnaire mailed to a sample of magazine subscribers holding top and middle management positions in U.S. corporations.

The survey imposed no size limitations on the corporations. However, for purposes of this study top management and middle management were defined as positions that command a salary of over \$50,000 per year and between \$30,000 and \$50,000 per year, respectively. This information was obtained through the magazine subscription qualification cards.

In order to provide a reasonably stable base for each of the two management classifications a random sample of 240 U.S. corporations were selected. This selection resulted in 181 usable responses which represented a 75.4 percent response rate. The final survey responses were almost evenly represented by top and middle management. Of the total respondents, middle management represented 51.9 percent while top management represented the remaining 48.1 percent.

The distributed questionnaire contained a list of ten statements preceded by this instruction:

Please indicate the extent to which you agree or disagree with each of the statements (+3 and -3 indicate the strongest agreement or disagreement, respectively, while +1 and -1 indicate a slight agreement or disagreement, respectively).

Traditional Orientation of Managers and Its Implications

As mentioned earlier, the underlying purpose of this survey was to permit the identification of pockets of relative support for, or resistance to, improved office productivity. Table 1, on page 6, presents the overall patterns of agreement and disagreement with each of the ten statements, ranked in order of high to low labor intensity. (This was not, of course, the order in which they were placed in the original survey instrument.) What is most apparent

(Continued on page 6)

¹ "Good-Bye to Gal Friday?" *Forbes*, December 15, 1975, pp. 47-48.

² "The Office of the Future," *Business Week*, June 30, 1975, pp. 48-84.

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Management Attitudes toward Productivity in the Office *(Continued from page 5)*

in the responses is the consistent lack of unanimity and the frequency of contradictory reactions to similar statements.

In broad terms, top management was found to be more resistant to change in traditional office procedures than middle management. This resistance is not altogether unforeseeable in that top management positions are most frequently commanded by people in a higher age group than that of middle management. Tried and proven ways are not easily cast aside to make way for new automated innovations. The traditional approach is overwhelmingly preferred by top management.

TABLE 1
MANAGEMENT ATTITUDES TOWARD
OFFICE PRODUCTIVITY

Statement	Level of Agreement (+) or Disagreement (—) ¹		
	Top Management	Middle Management	Combined Management
Automation ↑			
• Office productivity is just as important as factory productivity.	+3.00	+2.15	+2.57
• Office automation is inevitable at my organization.	—1.17	+0.62	—0.49
• My responsibilities could be accomplished on a more timely basis if my secretary had more modern equipment at her disposal.	—2.33	+1.37	—0.21
• A personal secretary is important for a manager at my level.	+1.33	—0.37	+0.36
• My secretary is most important to me as an office manager scheduling my itinerary and answering my calls.	+2.17	+0.50	+1.21
• Traditional boss-secretary relationships are a luxury in these days of heavy pressure on costs.	—2.17	—0.50	—1.50
• Office efficiency and productivity would increase if personal secretaries were replaced with automated office equipment.	—3.00	—0.62	—1.79
• I would be willing to give up my personal secretary if my typing could be done faster and more efficiently.	—3.00	—1.37	—2.07
• Elimination of my personal secretary is justified if office costs can be reduced.	—3.00	—1.50	—2.14
• It is very important that my correspondence be typed by a secretary familiar with my work.	+2.17	+2.50	+2.36
Labor Intensive ↓			

¹ On a range of +3.0, strongly agree, to —3.0, strongly disagree.

As a group, the respondents rationally acknowledge the desired goal of increased productivity and decreased costs (especially if someone else is making the sacrifice), but the line is drawn when it comes to personal sacrifice of status. Clearly, emotions overtake rational thinking in the choice between cost and status. The most pivotal consideration in this regard is change in the traditional relationships between managers and their secretaries. Three of the statements dealt directly with this issue. These were:

- Traditional boss-secretary relationships are a luxury in these days of heavy pressure on costs.
- It is very important that my correspondence be typed by a secretary familiar with my work.
- I would be willing to give up my personal secretary if my typing could be done faster and more efficiently.

Reactions to these three statements indicate the extent to which top and middle management are relatively willing to contemplate alteration of their secretarial arrangements. Top management is most adamant about losing the services of their personal secretaries. Interestingly, top management maintains this emotional desire for the traditional boss/secretary configuration regardless of the sacrifices of higher productivity and reduced costs . . . allegedly the objectives of the firm they represent.

There are several general implications which we can draw. There simply does not seem to be an appreciation of the rise in office costs. At the very least these costs have been subordinated to other values. The fact that these costs are buried in overhead, and distributed over the total organization, could have significant bearing on this view. If office costs were identified by line items and under the direct control of a manager who was responsible for them, there might be a greater appreciation of their magnitude. This could provide the incentive for employing methods which would reduce these costs.

Thus, while it is possible that top management could order sweeping organizational changes in the office environment, it seems likely that broad acceptance of current and future office technologies for the purpose of improved productivity will be hindered until top managers understand that they, too, can benefit from employing the office concepts made feasible and desirable by modern hardware.

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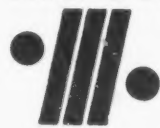
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BULLETIN OF BUSINESS RESEARCH STATISTICAL SUMMARY

Center for Business and Economic Research

The Ohio State University



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Business Conditions in Ohio and the United States

ITEM	OHIO						UNITED STATES					
	Unit or Index Base Period	Feb. 1980	Jan. 1980	CHANGE FROM			Unit or Index Base Period	Feb. 1980	Jan. 1980	CHANGE FROM		
				Last Month	Last Year					Last Month	Last Year	
				Feb. 1980 from Jan. 1980	Feb. 1980 from Feb. 1979	2 months from 1980				Feb. 1980 from Jan. 1980	Feb. 1980 from Feb. 1979	2 months from 1980
GENERAL BUSINESS												
• Bank Debts ^{1, 11}	1967 ^f	n.a.	n.a.	n.a.	n.a.	n.a.	Bil. \$ Ex. NY ^{4, 8}	n.a.	n.a.	n.a.	n.a.	n.a.
Commercial Failures—Number ¹²	Number	n.a.	n.a.	n.a.	n.a.	n.a.	Number	n.a.	n.a.	n.a.	n.a.	n.a.
Commercial Failures—Liabilities ¹²	Thous. Dol.	n.a.	n.a.	n.a.	n.a.	n.a.	Thous. Dol.	n.a.	n.a.	n.a.	n.a.	n.a.
Life Insurance Sales ⁹	1967	327	289	+ 13	+ 14	+ 13	1967	334	312	+ 7	+ 19	+ 17
INCOME												
• Total Personal Income ^{1, 13}	Mil. Dol. ^{4, 8}	98,786	98,643	+ x	+ 9	+ 9	Bil. Dol. ^{4, 8}	2,652	2,045	+ x	+ 11	+ 11
Salaries & Wages Income ^{7, 10}	Mil. Dol. ^{4, 8}	c	c	— 1	— 1	— 1	Bil. Dol. ^{4, 8}	1,299	1,291	+ x	+ 9	+ 9
Nonagricultural Income ¹³							Bil. Dol. ^{4, 8}	2,004	1,995	+ x	+ 11	+ 12
Employee Earn.—Gross Wkly.: Mfg. ^{14, 15}	Dollars	332.93	331.30	+ x	+ 3	+ 3	Dollars	277.11	276.61	+ x	+ 6	+ 6
Const. ^{14, 15}	Dollars	446.31	437.34	+ 2	+ 12	+ 12	Dollars	341.87	331.20	+ 3	+ 7	+ 7
Agr. Income (Cash Mktgs.) ^{10, 17}	1957-59	n.a.	n.a.	n.a.	n.a.	n.a.	1967					
EMPLOYMENT & UNEMPLOYMENT												
Civilian Labor Force ^{14, 15}	Thousands	4,963	4,994	— 1	— x	— x	Thousands	103,257	103,188	+ x	+ 2	+ 2
Civilian Employment ^{14, 15}	Thousands	4,613	4,645	— 1	— 1	— 1	Thousands	96,264	96,145	+ x	+ 2	+ 2
Nonagricultural Employment ^{14, 15}	Thousands	4,403	4,413	— x	+ x	+ x	Thousands	93,428	93,363	+ x	+ 2	+ 2
Mfg. Prod. Employment ^{7, 15}	1967	74	76	— 2	— 10	— 9	1967	103	103	+ x	— 1	— 1
Average Weekly Hours—Mfg. Prod. ^{7, 15}	1967	170	173	— 1	— 9	— 9	1967	248	247	+ x	+ 4	+ 4
Unemployment, Total—No. ^{14, 15}	Number	40.7	40.7	— x	— 3	— 3	Number	39.7	39.8	— x	— 1	— 1
Unemployment, Total—Rate ^{14, 15}	Thousands	350	349	+ x	+ 7	+ 6	Thousands	6,993	7,043	— 1	+ 8	+ 9
Unemployment, Insured ^{14, 15}	Percent	7.9	7.0				Percent	6.8	6.8			
Registered for Work, O.B.E.S. ¹⁴	Thousands	211	205	+ 3	+ 53	+ 53	Thousands	3,730	3,740	— x	+ 16	+ 17
Unemployment Compensation Fund ¹⁴	Mil. Dol.	361	351	+ 3	+ 14	+ 13						
		375	435	+ 14	— 11	— 4						
PRODUCTION												
Gross National Product (Quarterly) ¹³							Bil. Dol. ^{4, 8}	n.a.	n.a.	n.a.	n.a.	n.a.
Industrial Production ^{7, 11}	1967	c	c	— 2	— 13	— 13	1967 ^d	153	153	+ x	+ 1	+ 1
Steel Production ¹⁵	Thous. Tons	1,512	1,521	— 1	— 9	— 12	Thous. Tons	10,332	10,701	+ 3	— 2	— 3
Electric Power Production ⁸	1967 ^f	n.a.	n.a.	n.a.	n.a.	n.a.	Mil. KWH	n.a.	n.a.	n.a.	n.a.	n.a.
Bituminous Coal Production ¹⁸	Thous. Tons	2,603	3,353	— 22	— 21	— 9	Thous. Tons	62,980	65,880	— 4	+ 17	+ 17
Pig Iron Production ¹⁸	Thous. Tons	951	992	— 4	— 11	— 13	Thous. Tons	6,357	6,583	— 3	— 4	— 5
Machine Tools—Shipments ²⁰							Mil. Dol.	346.90	330.70	+ 5	+ 24	+ 29
Machine Tools—New Orders ²⁰							Mil. Dol.	500.10	466.90	+ 7	+ 12	+ x
Durable Goods—New Orders ¹³							Mil. Dol. ⁴	81,877	82,033	— x	+ 1	+ 2
CONSTRUCTION (Value of Contracts)												
Total (Seas. Adj.) ^{9, 21}	1967 ^d						1967 ^d					
Residential Building ^{9, 21}	1967 ^f	186	117	+ 59	+ 36	+ 14	Mil. Dol.	10,394	11,080	— 6	— 25	— 16
Nonresidential Building ^{9, 21}	1967 ^f	98	90	+ 9	— 27	— 18	Mil. Dol.	4,337	4,100	+ 6	— 5	— 8
Utilities and Non-Building Const. ^{9, 21}	1967 ^f	261	114	+ 130	+ 137	+ 36	Mil. Dol.	3,635	4,352	— 16	+ 12	+ 11
	1967 ^f	197	189	+ 4	— 9	+ 19	Mil. Dol.	2,422	2,628	— 8	— 60	— 46
DISTRIBUTION												
Total Retail Sales ^{9, 13}	1957-59 ^d	298	293	+ 2	+ 8	+ 7	Mil. Dol. ⁴	78,209	79,464	— 2	+ 10	+ 11
Department Store Sales ^{9, 13}	1957-59 ^d	251	218	+ 15	+ 5	+ 1	Mil. Dol. ⁴	7,685	7,851	— 2	+ 14	+ 15
New Passenger Cars Registered ^{1, 22}	1967	90	95	— 5	+ 3	+ x	No.—49 sts.	698,413	749,305	— 7	— 8	— 5
New Trucks Registered ^{1, 22}	No.—41 cos.	3,324	4,432	— 25	— 34	— 33	No.—45 sts.	208,923	232,409	— 10	— 24	— 21
Used Cars Registered ¹	No.—33 cos.	24,891	24,389	+ 2	+ 20	+ 17						
PRICES												
• Consumer Price Index ¹⁰ :							1967	236	233	+ 1	+ 14	+ 14
All Urban Consumers							1967	237	232	+ 1	+ 14	+ 14
Wage Earners & Clerical Workers												
Producer Price Index ¹⁰ :							1967	260	255	+ 2	+ 16	+ 16
All Commodities							1967	235	232	+ 1	+ 13	+ 13
Finished Goods							1967	271	266	+ 2	+ 19	+ 18
Intermediate Materials							1967	308	297	+ 4	+ 14	+ 14
Crude Materials							1967	323	316	+ 2	+ 18	+ 20
Sensitive Indus. Commodities ¹⁰												
BANKING AND FINANCE												
• Bank Loans, Large Banks—Total ¹⁴	Mil. Dol.	25,381	24,378	+ 4	+ 21	+ 19	Mil. Dol.	412,231	409,652	+ 1	+ 15	+ 16
Bus. & Agric. ¹⁴	Mil. Dol.	9,051	8,845	+ 2	+ 20	+ 19	Mil. Dol.	164,712	161,967	+ 2	+ 19	+ 19
Stock Price Index—400 Indus. ²³							1941-43 = 10	132.4	124.9	+ 6	+ 20	+ 16
40 Utils. ²³							1941-43 = 10	48.7	50.6	— 4	— 4	— 2
20 Trans. ²³							1970 = 10	17.3	15.3	+ 13	+ 31	+ 22
Yield, Corp. AAA Bonds ²³							Percent	12.88	10.86	+ 19	+ 39	+ 28

* Indicates series charted (page S-1). For sources and footnotes, see page S-3.

U 3770-1 U.A.
used 7/8/80

Business Conditions in the 8 Largest OHIO CITIES

ITEM	Unit or Index Base Period	CHANGE FROM LAST YEAR				CHANGE FROM LAST YEAR				CHANGE FROM LAST YEAR				CHANGE FROM LAST YEAR			
		Feb. 1980	Jan. 1980	Feb. 1980 from 1979	2 months from 1980 from 1979	Feb. 1980	Jan. 1980	Feb. 1980 from 1979	2 months from 1980 from 1979	Feb. 1980	Jan. 1980	Feb. 1980 from 1979	2 months from 1980 from 1979	Feb. 1980	Jan. 1980	Feb. 1980 from 1979	2 months from 1980 from 1979
		(P)	(C)			(P)	(C)			(P)	(C)			(P)	(C)		
AKRON																	
Number Employed ¹ :				%	%			%	%			%	%			%	%
Total*	1967	75	83	-10	-6	92	93	-3	-3	75	77	-8	-7	90	90	-3	-3
Manufacturing	"	57	59	-12	-11	86	85	-5	-6	64	67	-19	-17	73	73	-9	-9
Trade, Serv., & Utils.	"	109	114	-9	-2	107	109	-x	+x	87	87	+1	+1	109	110	-x	+1
Construction	"	47	55	+7	+5	66	73	-15	-11	69	73	+1	+3	64	67	+3	+3
Payrolls ² :																	
Total*	"	159	173	-6	-2	237	234	+2	+1	195	199	-8	-7	205	204	-1	-1
Manufacturing	"	121	127	-10	-8	219	210	-x	-2	153	159	-20	-20	158	156	-13	-14
Trade, Serv., & Utils.	"	238	268	-3	+3	259	304	+6	+6	252	254	+3	+4	273	272	+9	+9
Construction	"	108	120	+14	+13	155	176	+1	+7	172	179	+14	+15	172	180	+20	+19
Emp. Earn.—Gross Wkly. ³ :																	
All Industries*	\$	317.59	316.75	+4	+4	332.13	328.74	+4	+4	302.29	299.51	+1	+x	356.87	351.01	+3	+2
Manufacturing	"	366.58	370.14	+3	+4	368.79	363.43	+3	+2	329.50	323.61	+1	-1	376.42	365.73	-3	-5
Trade, Serv., & Utils.	"	246.72	241.80	+6	+6	260.53	258.50	+6	+5	260.68	261.89	-1	-x	323.08	321.69	+9	+9
Construction	"	432.56	415.45	+7	+7	439.11	450.81	+9	+10	441.00	429.39	+13	+12	494.13	491.94	+16	+16
Retail Sales ⁴ :	%	e	e	+7	+10	e	e	+5	+7	e	e	+4	+4	e	e	+2	+2
Auto Titles ⁵ :																	
New Cars	No.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	4,119	4,390	-2	-2	5,666	6,120	-6	-7
New Trucks	"	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	553	650	-31	-27	663	659	-21	-26
Retail Food Prices ¹⁰	1967	b	b	b	b	b	b	b	b	257	254	+5	+6	249	246	+5	+5
Bank Debts ¹¹	1967 ¹	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Commercial Failures ¹² :																	
Failures	No.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Liabilities	Thous. \$	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Indus. Power Consump. ¹⁴	1967 ¹	145	120	-8	-10	b	b	b	b	b	b	b	b	b	b	b	b
Value of Bldg. Const. ¹⁵ :																	
Total	"	51	104	-61	-40	160	78	+103	-6	149	143	+36	+6	233	45	+282	+77
Residential	"	48	54	-62	-28	73	58	-37	+9	91	94	-41	-14	50	35	+1	-22
Nonresidential	"	53	154	-61	-45	266	101	+717	-11	201	187	+194	+18	399	54	+460	+127
Steel Production ¹⁶	1967 ⁹	b	b	b	b	b	b	b	b	87	88	-21	-17	121	123	-5	-2
Labor Force Estimates ¹⁷ :																	
Civilian Labor Force	Thous.	239.3	242.1	+x	+1	172.0	172.3	+2	+2	415.4	418.3	-2	-2	730.2	735.1	-2	-2
Civilian Employment	"	221.5	224.8	-x	-x	159.3	160.4	+1	+2	391.9	394.9	-2	-2	688.9	692.9	-2	-2
Unemp. Total—No.	"	17.7	17.4	+10	+9	12.7	11.9	+13	+8	23.5	23.4	-7	-10	41.3	42.2	+1	+2
Unemp., Total—Rate	%	7.4	7.2			7.4	6.9			5.7	5.6			5.7	5.7		
CANTON																	
Number Employed ¹ :				%	%			%	%			%	%			%	%
Total*	1967	102	106	-2	-2	103	105	-1	-1	94	97	-9	-7	82	84	-4	-4
Manufacturing	"	72	74	-7	-8	68	69	-8	-7	68	73	-25	-21	53	55	-10	-10
Trade, Serv., & Utils.	"	126	131	-1	-1	169	161	+3	+2	120	122	+x	+x	121	123	+x	+1
Construction	"	63	63	+22	+18	61	70	+11	+13	70	69	+41	+40	47	54	-12	-10
Payrolls ² :																	
Total*	"	240	246	+5	+4	207	210	+3	+2	216	221	-7	-6	189	185	+2	+1
Manufacturing	"	158	159	-4	-6	150	154	-6	-6	141	156	-30	-27	135	128	-4	-8
Trade, Serv., & Utils.	"	326	335	+7	+7	345	341	+12	+9	321	320	+7	+6	301	299	+11	+10
Construction	"	147	146	+39	+37	147	164	+22	+24	195	171	+75	+66	131	143	-16	-12
Emp. Earn.—Gross Wkly. ³ :																	
All Industries*	\$	280.63	275.76	+7	+6	354.13	353.07	+4	+3	330.58	330.77	+3	+3	318.34	303.48	+5	+3
Manufacturing	"	342.59	334.85	+5	+4	389.30	392.13	+1	+x	355.40	360.91	-5	-4	358.76	332.66	+4	+1
Trade, Serv., & Utils.	"	228.97	225.08	+7	+6	294.62	289.48	+10	+7	283.82	280.66	+11	+10	246.30	242.89	+11	+10
Construction	"	390.78	392.42	+16	+17	427.57	414.29	+11	+11	532.50	519.11	+17	+17	490.33	488.59	-8	-4
Retail Sales ⁴ :	%	e	e	+9	+3	n.a.	n.a.	n.a.	n.a.	e	e	+11	+2	e	e	+4	+4
Auto Titles ⁵ :																	
New Cars	No.	3,898	3,551	+13	-1	2,369	2,613	+6	+x	1,844	2,062	n.a.	n.a.	973	965	+x	-3
New Trucks	"	637	653	-8	-20	79	302	-82	-61	227	297	n.a.	n.a.	157	165	-33	-19
Retail Food Prices ¹⁰	1967	b	b	b	b	b	b	b	b	b	b	b	b	b	b	b	b
Bank Debts ¹¹	1967 ¹	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Commercial Failures ¹² :																	
Failures	No.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Liabilities	Thous. \$	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Indus. Power Consump. ¹⁴	1967 ¹	b	b	b	b	b	b	b	b	151	150	-10	-10	92	83	-11	-12
Value of Bldg. Const. ¹⁵ :																	
Total	"	166	176	-4	+19	495	102	+209	+160	199	67	+14	+5	163	43	+227	+97
Residential	"	162	129	+56	+47	30	29	-76	-71	184	107	+27	+4	20	39	-60	-56
Nonresidential	"	170	223	-29	+4	1,081	194	+421	+372	207	46	+8	+6	331	46	+585	+452
Steel Production ¹⁶	1967 ⁹	b	b	b	b	b	b	b	b	b	b	b	b	72	67	-17	-20
Labor Force Estimates ¹⁷ :																	
Civilian Labor Force	Thous.	423.9	427.5	-2	-1	267.3	269.3	-1	-x	217.2	219.4	-3	-2	127.8	129.6	-2	-2
Civilian Employment	"	405.1	407.6	-1	-x	249.2	251.2	-2	-1	198.5	200.5	-4	-3	116.9	118.0	-3	-5
Unemp. Total—No.	"	18.9	19.9	-22	-18	18.1	18.2	+19	+19	18.7	19.0	+15	+15	10.8	11.6	+4	+5
Unemp., Total—Rate	%	4.5	4.7			6.8	6.7			8.6	8.6			8.5	8.9		
CINCINNATI																	
Number Employed ¹ :				%	%			%	%			%	%			%	%
Total*	1967	75	83	-10	-6	92	93	-3	-3	75	77	-8	-7	90	90	-3	-3
Manufacturing	"	57	59	-12	-11	86	85	-5	-6	64	67	-19	-17	73	73	-9	-9
Trade, Serv., & Utils.	"	109	114	-9	-2	107	109	-x	+x	87	87	+1	+1	109	110	-x	+1
Construction	"	47	55	+7	+5	66	73	-15	-11	69	73	+1	+3	64	67	+3	+3
Payrolls ² :																	
Total*	"	159	173	-6	-2	237	234	+2	+1	195	199	-8	-7	205	204	-1	-1
Manufacturing	"	121	127	-10	-8	219	210	-x	-2	153	159	-20	-20	158	156	-13	-14
Trade, Serv., & Utils.	"	238	268	-3	+3	259	304	+6	+6	252	254	+3	+4	273	272	+9	+9
Construction	"	108	120	+14	+13	155	176	+1	+7	172	179	+14	+15	172	180	+20	+19
Emp. Earn.—Gross Wkly. ³ :																	
All Industries*	\$	317.59	316.75	+4	+4	332.13	328.74	+4	+4	302.29	299.51	+1	+x	356.87	351.01	+3	+2
Manufacturing	"	366.58	370.14	+3	+4	368.79	363.43	+3	+2	329.50	323.61	+1	-1	376.42	365.73	-3	-5
Trade, Serv., & Utils.	"	246.72	241.80	+6	+6	260.53	258.50	+6	+5	260.68	261.89	-1	-x	323.08	321.69	+9	+9
Construction	"	432.56	415.45	+7	+7	439.11	450.81	+9	+10	441.00	429.39	+13	+12	494.13	491.94	+16	+16
Retail Sales ⁴ :	%	e	e	+7	+10	e	e	+5	+7	e	e	+4	+4	e	e	+2	+2
Auto Titles ⁵ :																	

Number Employed, Payrolls, and Man-Hours in Ohio Industry

INDUSTRIAL GROUP	NUMBER EMPLOYED ¹					PAYROLLS ²					MAN-HOURS ³				
	INDEX					INDEX					INDEX				
	(1967 = 100)					(1967 = 100)					(1967 = 100)				
	Feb. 1980	Jan. 1980	Feb. 1980 from Jan. 1980	Feb. 1980 from Feb. 1979	2 months from 1980	Feb. 1980	Jan. 1980	Feb. 1980 from Jan. 1980	Feb. 1980 from Feb. 1979	2 months from 1980	Feb. 1980	Jan. 1980	Feb. 1980 from Jan. 1980	Feb. 1980 from Feb. 1979	2 months from 1980
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)
Total* (2,378)^a	85	87	- 3	- 5	- 4	191	194	- 2	- 1	- 1	82	84	- 3	- 6	- 6
All Manufacturing* (1,294)	74	76	- 2	- 10	- 9	170	173	- 1	- 9	- 9	69	70	- 2	- 13	- 13
Chemicals (68)	81	97	- 16	- 18	- 10	164	185	- 11	- 21	- 16	76	84	- 9	- 26	- 16
Food Products (88)	77	80	- 4	- 4	- 3	185	195	- 5	+ 2	+ 4	66	71	- 7	- 7	- 4
Bakery	70	71	- 2	- 8	+ 2	165	169	- 2	+ 6	+ 11	65	67	- 4	- 2	+ 3
Miscellaneous	77	81	- 4	- 5	- 4	187	198	- 6	+ 1	+ 4	66	71	- 7	- 7	- 5
Lumber Products (44)	87	89	- 2	- 13	- 13	183	181	+ 1	- 3	- 3	80	81	- 1	- 12	- 12
Furniture	98	98	+ 8	- 13	- 14	205	200	+ 3	- 8	- 3	94	93	+ 1	- 10	- 12
Miscellaneous	70	75	- 7	- 13	- 11	148	152	- 3	- 8	- 6	58	62	- 7	- 16	- 12
Machinery (300)	75	76	- 1	- 2	- 1	167	167	- 8	+ 4	+ 4	71	72	- 1	- 5	- 4
Elec. Mach., Apparatus and Supplies	83	86	- 3	- 1	+ 1	194	194	- 8	+ 6	+ 6	79	80	- 1	- 2	- 2
Machine Tools	66	62	+ 6	+ 2	- 8	154	150	+ 2	+ 10	+ 9	68	66	+ 3	+ 8	+ 8
Agricultural Equipment	49	50	- 3	- 8	- 6	115	118	- 3	+ 2	+ 7	55	57	- 3	- 9	- 6
Special Machinery and Appliances	70	70	- 1	- 5	- 5	142	144	- 1	- 1	- 8	64	66	- 2	- 9	- 8
Metal Products (354)	82	83	- 1	- 10	- 10	191	190	+ 1	- 9	- 9	74	74	- 1	- 14	- 14
Foundry Products and Drop Forgings	91	93	- 2	- 14	- 14	221	223	- 1	- 18	- 18	74	76	- 2	- 19	- 18
Pipes, Valves, and Plumbers' Supplies	77	85	- 9	- 12	- 7	210	204	+ 3	- 6	- 6	88	88	- 1	- 16	- 15
Screw Machine Products and Hdwe.	92	92	- 1	- 10	- 9	170	172	- 1	- 10	- 9	87	89	- 2	- 15	- 14
Sheet Metal Work	82	84	- 3	- 19	- 18	178	178	- 8	- 19	- 20	67	68	- 1	- 23	- 23
Steel Works and Rolling Mills	77	77	- 8	- 4	- 5	181	177	+ 2	- 3	- 4	71	71	+ 8	- 11	- 12
Stoves and Furnaces	85	91	- 6	- 25	- 22	181	188	- 4	- 17	- 12	92	95	- 4	- 23	- 20
Miscellaneous	80	80	- 1	- 9	- 9	185	184	+ 8	- 5	- 5	70	70	- 1	- 11	- 11
Paper and Printing (137)	64	65	- 8	- 4	- 4	162	165	- 2	+ 1	+ 2	59	61	- 3	- 7	- 7
Paper and Pulp	48	49	- 8	+ 8	- 8	159	163	- 2	+ 8	+ 2	40	41	- 3	- 3	- 2
Printing and Publishing	75	74	+ 1	- 5	- 5	167	166	+ 8	- 1	- 1	67	68	- 2	- 6	- 5
Miscellaneous	65	65	- 1	- 5	- 5	155	160	- 3	- 8	+ 1	65	67	- 4	- 10	- 9
Rubber Products (53)	64	66	- 3	- 13	- 12	154	161	- 4	- 13	- 11	58	61	- 5	- 18	- 16
Tires and Tubes	48	49	- 2	- 7	- 6	102	106	- 4	- 11	- 9	35	37	- 5	- 14	- 13
Miscellaneous	73	76	- 3	- 16	- 15	196	204	- 4	- 14	- 12	77	81	- 7	- 19	- 18
Stone, Clay, and Glass Products (94)	73	74	- 1	- 3	- 6	180	184	- 2	+ 4	+ 8	79	80	- 2	- 3	- 6
Brick and Tile	50	54	- 7	- 13	- 11	104	107	- 3	- 6	- 6	50	53	- 5	- 15	- 14
Glass	79	80	- 1	- 2	- 8	179	187	- 4	+ 4	- 2	78	81	- 3	- 8	- 7
Vitreous & Semi-Vit. China & Pottery	57	56	+ 1	- 1	- 1	171	169	+ 1	+ 8	+ 9	87	87	+ 8	- 3	- 2
Miscellaneous	84	84	- 8	- 3	- 3	212	207	+ 2	+ 3	+ 2	86	85	+ 2	- 5	- 7
Textiles (37)	72	71	+ 2	- 7	- 7	111	107	+ 4	- 7	- 8	70	68	+ 3	- 12	- 12
Men's Clothing	81	81	- 8	- 5	- 4	108	106	- 2	- 8	- 8	70	69	+ 1	- 14	- 14
Miscellaneous	68	65	+ 4	- 9	- 9	118	112	+ 6	- 6	- 7	72	68	+ 5	- 9	- 10
Vehicles (62)	66	68	- 3	- 30	- 30	155	158	- 2	- 36	- 37	57	59	- 2	- 37	- 37
Autos and Parts	69	72	- 3	- 37	- 36	166	172	- 3	- 43	- 43	59	61	- 4	- 44	- 44
Cars, Electric and Steam Railway	110	115	- 4	+ 8	+ 5	237	253	- 6	+ 3	+ 6	97	104	- 7	- 3	+ 2
Miscellaneous	61	60	+ 1	+ 23	+ 25	147	132	+ 7	+ 38	+ 36	62	59	+ 5	+ 23	+ 22
Miscellaneous Manufacturing (57)	64	64	- 8	- 7	- 7	149	147	+ 1	+ 7	+ 6	61	61	+ 8	- 3	- 5
Total Trade, Service, and Utilities* (709)	100	103	- 3	- 1	+ 8	229	234	- 2	+ 6	+ 7	102	105	- 3	- 1	+ 8
Service (209)	119	119	- 8	+ 4	+ 4	251	249	+ 1	+ 12	+ 12	132	131	+ 1	+ 5	+ 5
Trade, Retail and Wholesale (391)	87	93	- 7	- 5	- 2	192	205	- 6	+ 1	+ 3	84	91	- 8	- 5	- 2
Transportation & Public Utilities (109)	108	108	+ 1	- 8	- 8	296	294	+ 1	+ 8	+ 8	107	107	+ 7	- 1	- 2
Construction (347)	59	61	- 4	+ 11	+ 10	157	156	+ 1	+ 34	+ 30	55	56	- 3	+ 21	+ 20
Mines and Quarries (28)	122	124	- 1	- 2	- 2	276	264	+ 4	+ 11	+ 9	77	75	+ 2	- 1	- 2

Indexes of number employed and of payrolls are based on the employment of 493,855 persons (production workers in manufacturing and mining, construction workers in contract construction, and nonsupervisory employees in other categories) in 2,378 firms; indexes of man-hours, on the employment of 480,046 production workers and nonsupervisory employees in 2,279 firms. Figures in parentheses show number of firms reporting employment and payrolls. In some cases fewer firms report man-hours. Data do not include agriculture, government, education, or public institutions. For sources and footnotes, see below.

FOOTNOTES FOR BULLETIN TABLES AND CHARTS

¹Change in number of failures: ²Figures in parentheses show number of firms reporting this month; ³Current data not available; ⁴Comparable data not available; ⁵Only percentage of change available; ⁶Adjusted for seasonal change; ⁷Adjusted for number of working days; ⁸Four weeks average; ⁹Annual rate; ¹⁰Preliminary; ¹¹Revised; ¹²Series revised; ¹³Weighted; ¹⁴Less than 0.5 percent; ¹⁵More than 1,000 percent increase.

Primary Sources:

Computed from: ¹Center for Business and Economic Research multiple regression model.

Computed from original data collected by the Center for Business and Economic Research from: ²Ohio retailers; ³County Clerks of Courts; ⁴Local Power and Light Companies.

Computed by the Center for Business and Economic Research from data supplied by: ⁵Board of Governors of the Federal Reserve System;

⁶Life Insurance Marketing and Research Association; ⁷Division of Research and Statistics of the Ohio Bureau of Employment Services, collected in cooperation with the Bureau of Labor Statistics, U.S. Department of Labor; ⁸Federal Power Commission; ⁹F. W. Dodge Division, McGraw-Hill Information Systems Company; ¹⁰Dun & Bradstreet, Inc.

Other data sources: ¹¹Federal Reserve Board; ¹²Dun & Bradstreet, Inc.; ¹³U.S. Department of Commerce; ¹⁴Division of Research and Statistics of the Ohio Bureau of Employment Services; ¹⁵U.S. Department of Labor; ¹⁶Department of Agricultural Economics, O.S.U.; ¹⁷U.S. Department of Agriculture; ¹⁸American Iron and Steel Institute; ¹⁹U.S. Department of Energy; ²⁰National Machine Tool Builders' Association; ²¹F. W. Dodge Division, McGraw-Hill Information Systems Company; ²²R. L. Polk & Co.; ²³Standard & Poor's Corporation.

Note: In the Ohio-U.S. table, page S-2, dual source notes on a single line of the table stub refer first to Ohio data, second to U.S. data.

Ohio Retail Sales Trends

February Sales of Ohio Retailers declined 3 percent from January sales, but after adjustment for seasonal variation the February sales index was 2 percent higher than the January index. Current February sales were 8 percent higher than sales in February 1979.

For the First Two Months of 1980, total sales were up 7 percent from two-month sales in 1979.

By Kind of Business, sales volumes reported by individual retailers were variously affected by higher prices, diverse buying patterns (from belt-tightening to buy-before-prices-go-up), customer use of credit, local economic situations, and weather conditions. The resulting comparisons of February summaries with prior months yielded less than distinct patterns for sales categories. In general, a majority of the kinds of business had February-from-January declines along with February-from-February gains. In two high volume lines, February sales comparisons were consistent—upward for department stores (+8 percent from January and +5 percent from February 1979) and downward for motor vehicle dealers (-2 percent from January and -3 percent from February 1979).

BULLETIN OF BUSINESS RESEARCH

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INDEXES OF OHIO RETAIL SALES

KIND OF BUSINESS	INDEX (1957-59 = 100)		CHANGE			
	Feb. 1980	Jan. 1980	Feb. 1980 from Jan. 1980		Feb. 1980 from Feb. 1979	
			Not Seas. Adj.	Seas. Adj.	from 1979	2 months from 1979
Total Retail Stores*	252	260	-3	+2	+8	+7
Grocery Stores	310	315	-2	+6	+17	+14
Other Food Stores	369	397	-7	-1	+21	+23
General Stores (With Food)	174	179	-2	+2	+44	+40
Department Stores	179	167	+8	+15	+5	+3
Other General Merchandise	231	207	+12	+11	+37	+25
Men's Clothing-Furns. Stores	99	123	-20	+6	+11	+3
Family Clothing Stores	97	86	+9	+25	+7	-3
Women's Ready-to-Wear Strs.	102	1	-16	-2	-8	-2
Shoe Stores	76	92	-17	-1	+9	+6
Furniture Stores	215	232	-7	9	+10	+12
Household Appl.-TV-Rdio. Strs.	173	177	-3	-2	+7	+1
Home Furnishings Stores	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Motor Vehicle Dealers	296	301	-2	7	-3	-2
Other Automotive	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Filling Stations	331	391	-15	-2	+3	+4
Lumber-Bldg. Matis. Dealers	183	200	-9	+1	+22	+14
Paint, Glass & Wallpaper Strs.	153	185	-17	-29	+22	+33
Heat-Plumb. & Elec. Sup. Strs.	238	222	+7	+33	+26	+28
Hardware Stores	181	190	-5	-4	+5	-2
Farm Equipment Dealers	460	544	-16	-17	+28	+23
Eating & Drinking Places	190	196	-3	+3	+4	+7
Drug Stores	309	257	+20	+25	+25	+15
Jewelry Stores	152	158	-4	x	+13	+20
Florists	205	121	+70	+63	+5	-4
Fuel Dealers	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Hay-Feed, Farm & Grdn. Strs.	370	418	-12	-4	-24	-6
State Liquor Stores	149	137	+9	+7	+9	+6

For sources and footnotes, see page S-3.



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BULLETIN OF BUSINESS RESEARCH STATISTICAL SUMMARY

Center for Business and Economic Research

The Ohio State University



Volume LV, Number 5 • May 1980

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Business Conditions in Ohio and the United States

ITEM	OHIO						UNITED STATES					
	Unit or Index Base Period	Mar. 1980 (p)	Feb. 1980 (r)	CHANGE FROM			Unit or Index Base Period	Mar. 1980 (p)	Feb. 1980 (r)	CHANGE FROM		
				Last Month	Last Year					Last Month	Last Year	
				Mar. 1980 from Feb. 1980	Mar. 1980 from Mar. 1979	3 months from 1979				Mar. 1980 from Feb. 1980	Mar. 1980 from Mar. 1979	3 months from 1979
GENERAL BUSINESS				%	%	%				%	%	%
• Bank Deposits ¹¹	1987 ¹	n.a.	n.a.	n.a.	n.a.	n.a.	Bil. \$ Ex. NY ^{4, 5}	n.a.	n.a.	n.a.	n.a.	n.a.
• Commercial Failures—Number ¹²	Number	n.a.	n.a.	n.a.	n.a.	n.a.	Number	n.a.	n.a.	n.a.	n.a.	n.a.
• Commercial Failures Liabilities ¹²	Thous. Dol.	n.a.	n.a.	n.a.	n.a.	n.a.	Thous. Dol.	n.a.	n.a.	n.a.	n.a.	n.a.
• Life Insurance Sales ⁹	1987	359	327	+ 10	+ 8	+ 11	1987	379	334	+ 13	+ 11	+ 15
INCOME												
• Total Personal Income ^{1, 13}	Mil. Dol. ^{4, 5}	99,637	98,786	+ 1	+ 9	+ 9	Bil. Dol. ^{4, 5}	2,069	2,054	+ 1	+ 11	+ 11
• Salaries & Wages Income ^{7, 13}	Mil. Dol. ^{4, 5}	c	c	+ 1	+ 1	+ 1	Bil. Dol. ^{4, 5}	1,310	1,301	+ 1	+ 9	+ 9
• Nonagricultural Income ¹³	b	b	b	b	b	b	Bil. Dol. ^{4, 5}	2,024	2,006	+ 1	+ 11	+ 11
• Employee Earn.—Gross Wkly.: Mfg. ^{14, 15}	Dollars	339.05	333.74	+ 2	+ 4	+ 3	Dollars	280.59	277.50	+ 1	+ 5	+ 6
• " " Const. ^{14, 15}	Dollars	441.86	448.13	+ 1	+ 6	+ 10	Dollars	342.22	342.47	+ x	+ 3	+ 6
• Agr. Income (Cash Mkts.) ^{16, 17}	1957-59	n.a.	n.a.	n.a.	n.a.	n.a.	1967	n.a.	n.a.	n.a.	n.a.	n.a.
EMPLOYMENT & UNEMPLOYMENT												
• Total Labor Force ^{18, 19}	Thousands	4,926	4,963	— 1	— 2	— 1	Thousands	103,351	103,257	+ x	+ 2	+ 2
• Civilian Employment ^{18, 19}	Thousands	4,602	4,613	— x	— 2	— 1	Thousands	96,546	96,254	+ x	+ 1	+ 1
• Nonagricultural Employment ^{14, 15}	Thousands	4,438	4,405	+ 1	+ x	+ x	Thousands	93,554	93,428	+ x	+ 1	+ 2
• Mfg. Prod. Employment ^{7, 13}	1987	75	74	+ 1	+ 10	+ 9	1987	102	102	+ x	+ 2	+ 1
• Mfg. Prod. Payrolls ^{7, 13}	1987	174	170	+ 2	+ 8	+ 9	1987	250	247	+ 1	+ 3	+ 4
• Average Weekly Hours—Mfg. Prod. ^{7, 15}	Number	40.8	40.7	+ x	+ 3	+ 3	Number	39.8	39.7	+ x	+ 2	+ 1
• Unemployment, Total—No. ^{14, 15}	Thousands	324	350	— 7	+ 7	+ 7	Thousands	6,805	6,993	— 3	+ 10	+ 9
• Unemployment, Total—Rate ^{14, 15}	Percent	6.6	7.0				Percent	6.6	6.8			
• Unemployment, Insured ^{14, 15}	Thousands	198	211	— 6	+ 57	+ 55	Thousands	3,648	3,730	— 2	+ 25	+ 19
• Registered for Work, O.B.E.S. ¹⁴	Thousands	379	361	+ 5	+ 13	+ 13	b	b	b	b	b	b
• Unemployment Compensation Paid ¹⁴	Mil. Dol.	285	375	— 24	— 23	— 10	b	b	b	b	b	b
PRODUCTION												
• Gross National Product (Quarterly) ¹³	b	b	b	b	b	b	Bil. Dol. ^{4, 5}	2,520	n.a.	n.a.	+ 10	n.a.
• Industrial Production ^{7, 13}	1987	c	c	+ 1	— 13	— 13	1987 ⁴	151	152	— 1	+ 1	+ x
• Steel Production ¹⁴	Thous. Tons	1,600	1,512	+ 6	— 19	— 14	Thous. Tons	11,439	10,332	+ 11	+ 9	+ 5
• Electric Power Production ⁸	1987 ¹	n.a.	n.a.	n.a.	n.a.	n.a.	Mil. KWH	n.a.	n.a.	n.a.	n.a.	n.a.
• Bituminous Coal Production ¹⁰	Thous. Tons	3,788	3,090	+ 23	— 15	— 7	Thous. Tons	67,015	62,980	+ 6	+ 2	+ 12
• Pig Iron Production ¹⁸	Thous. Tons	1,042	951	+ 10	— 17	— 15	Thous. Tons	7,115	6,357	+ 12	+ 11	+ 7
• Machine Tools—Shipments ²⁰	b	b	b	b	b	b	Mil. Dol.	n.a.	346.90	n.a.	n.a.	n.a.
• Machine Tools—New Orders ²⁰	b	b	b	b	b	b	Mil. Dol.	n.a.	500.10	n.a.	n.a.	n.a.
• Durable Goods—New Orders ¹³	b	b	b	b	b	b	Mil. Dol. ⁴	79,135	81,877	— 3	+ 5	+ x
CONSTRUCTION (Value of Contracts)												
• Total (Seas. Adj.) ^{9, 21}	1987 ⁴	159	186	— 14	— 19	+ x	1987 ⁴	11,286	10,394	+ 9	— 25	— 20
• Total ^{9, 21}	1987 ¹	143	98	+ 45	— 30	+ 24	Mil. Dol.	4,585	4,337	+ 6	— 34	+ 19
• Residential Building ^{9, 21}	1987 ¹	159	261	— 39	+ 5	+ 21	Mil. Dol.	4,273	3,635	+ 18	+ 3	+ 7
• Nonresidential Building ^{9, 21}	1987 ¹	200	197	+ 1	— 23	+ 1	Mil. Dol.	2,429	2,422	+ x	— 36	+ 43
• Utilities and Non-Building Const. ^{9, 21}												
DISTRIBUTION												
• Total Retail Sales ^{1, 13}	1957-59 ⁴	288	298	— 3	+ 5	+ 3	Mil. Dol. ⁴	77,223	78,209	— 1	+ 7	+ 10
• Department Store Sales ^{1, 13}	1957-59 ⁴	281	251	+ 12	+ x	+ x	Mil. Dol. ⁴	7,474	7,685	+ 3	+ 8	+ 12
• New Passenger Cars Registered ^{2, 22}	1987	107	90	+ 19	— 21	+ 9	No.—49 sts.	797,955	698,413	+ 14	— 13	+ 8
• New Trucks Registered ^{2, 22}	No.—43 cos.	4,334	3,905	+ 11	+ 47	+ 39	No.—46 sts.	219,400	208,923	+ 5	— 31	+ 24
• Used Cars Registered ²	No.—30 cos.	28,916	24,185	+ 20	— 12	+ 5						
PRICES												
• Consumer Price Index ¹⁵ :	b	b	b	b	b	b	b	b	b	b	b	b
• All Urban Consumers	b	b	b	b	b	b	1987	240	236	+ 1	+ 15	+ 14
• Wage Earners & Clerical Workers	b	b	b	b	b	b	1987	240	237	+ 1	+ 15	+ 14
• Producer Price Index ¹⁵ :	b	b	b	b	b	b						
• All Commodities	b	b	b	b	b	b	1987	262	260	+ 1	+ 15	+ 16
• Finished Goods	b	b	b	b	b	b	1987	238	235	+ 1	+ 14	+ 13
• Intermediate Materials	b	b	b	b	b	b	1987	273	271	+ 1	+ 18	+ 18
• Crude Materials	b	b	b	b	b	b	1987	303	308	— 2	+ 9	+ 13
• Sensitive Indus. Commodities ¹⁵	b	b	b	b	b	b	1987	317	323	— 2	+ 10	+ 16
BANKING AND FINANCE												
• Bank Loans, Large Banks—Total ¹¹	Mil. Dol.	25,787	25,381	+ 2	+ 25	+ 21	Mil. Dol.	412,686	412,231	+ x	+ 15	+ 15
• " " Bus. & Agric. ¹¹	Mil. Dol.	9,271	9,051	+ 2	+ 23	+ 21	Mil. Dol.	166,171	164,712	+ 1	+ 19	+ 19
• Stock Price Index—400 Indus. ²³	b	b	b	b	b	b	1941-43 = 10	118.3	132.4	+ 11	+ 5	+ 12
• " " 40 Util. ²³	b	b	b	b	b	b	1941-43 = 10	45.6	48.7	+ 6	+ 10	+ 5
• " " 20 Trans. ²³	b	b	b	b	b	b	1970 = 10	15.5	17.3	+ 11	+ 14	+ 20
• Yield, Corp. AAA Bonds ²³	b	b	b	b	b	b	Percent	12.49	12.88	— 3	+ 34	+ 30

• Indicates series charted (page S-1). For sources and footnotes, see page S-3.

NOTE: All data are for county area except bank debits and commercial failures, which are for areas within city limits. The indexes of number employed and payrolls and the employee weekly earnings are based on data for production workers in manufacturing, construction workers in contract construction, and nonsupervisory employees in other categories which exclude agriculture, government education, and public institutions.

Number Employed, Payrolls, and Man-Hours in Ohio Industry

INDUSTRIAL GROUP	NUMBER EMPLOYED ⁷					PAYROLLS ⁷					MAN-HOURS ⁷				
	INDEX (1967 = 100)		CHANGE			INDEX (1967 = 100)		CHANGE			INDEX (1967 = 100)		CHANGE		
	Mar. 1980	Feb. 1980	Mar. 1980 from Feb. 1980	Mar. 1980 from Mar. 1979	3 months from 1979	Mar. 1980	Feb. 1980	Mar. 1980 from Feb. 1980	Mar. 1980 from Mar. 1979	3 months from 1979	Mar. 1980	Feb. 1980	Mar. 1980 from Feb. 1980	Mar. 1980 from Mar. 1979	3 months from 1979
	(p)	(r)				(p)	(r)				(p)	(r)			
Total^a (2,365)^a	85	85	+ 1	- 5	- 4	195	191	+ 2	- 1	- 1	82	82	+ 1	- 7	- 6
All Manufacturing^a (1,286)	75	74	+ 1	- 10	- 9	174	170	+ 2	- 8	- 9	69	69	+ 1	- 13	- 13
Chemicals (68)	79	81	- 3	- 20	- 13	164	164	+ x	- 22	- 18	75	76	- 2	- 22	- 18
Food Products (88)	78	77	+ 2	- 2	- 3	190	185	+ 3	+ 5	+ 4	68	66	+ 2	- 5	- 4
Bakery	69	70	- 1	- 2	+ 1	166	165	+ x	+ 4	+ 9	65	65	- x	- 5	+ x
Miscellaneous	79	77	+ 2	- 1	- 3	193	187	+ 3	+ 5	+ 4	68	66	+ 2	- 4	- 5
Lumber Products (43)	89	87	+ 2	- 12	- 13	187	183	+ 2	- 3	- 3	81	80	+ 2	- 12	- 12
Furniture	100	98	+ 2	- 12	- 13	209	205	+ 2	- 1	- 2	97	94	+ 2	- 11	- 12
Miscellaneous	71	70	+ 1	- 12	- 11	152	148	+ 3	- 9	- 7	59	58	+ 2	- 16	- 14
Machinery (299)	75	75	- 1	- 4	- 2	168	167	+ 1	+ 3	+ 4	71	71	- x	- 6	- 5
Elec. Mach., Apparatus and Supplies	84	83	+ x	- 1	+ x	198	194	+ 2	+ 6	+ 6	80	79	+ 1	- 3	- 2
Machine Tools	65	66	- x	+ 1	- x	154	154	- x	+ 8	+ 9	68	68	- 1	- 1	- 1
Agricultural Equipment	49	49	+ 1	- 11	- 7	114	115	- x	+ 4	+ 3	55	55	- 1	- 13	- 8
Special Machinery and Appliances	68	70	- 2	- 8	- 6	141	142	- 1	- 3	- 1	63	64	- 2	- 11	- 9
Metal Products (351)	83	82	+ 1	- 10	- 10	194	191	+ 1	- 8	- 9	74	74	+ x	- 14	- 14
Foundry Products and Drop Forgings	93	91	+ 2	- 14	- 14	234	221	+ 6	- 16	- 17	75	74	+ 1	- 20	- 19
Pipes, Valves, and Plumbers' Supplies	71	77	- 8	- 20	- 12	191	210	- 9	- 15	- 9	80	88	- 8	- 22	- 17
Screw Machine Products and Hdwe.	92	92	+ 1	- 10	- 9	176	170	+ 4	- 14	- 11	88	87	+ 1	- 20	- 16
Sheet Metal Work	83	82	+ 2	- 16	- 18	193	178	+ 9	- 14	- 18	71	67	+ 6	- 19	- 22
Steel Works and Rolling Mills	77	77	- x	- 5	- 5	176	181	- 3	- 1	- 3	70	71	- 2	- 9	- 11
Stoves and Furnaces	89	85	+ 4	- 23	- 22	178	181	- 1	- 18	- 14	90	92	- 1	- 24	- 22
Miscellaneous	80	80	+ 1	- 8	- 9	188	185	+ 1	- 5	- 5	70	70	+ x	- 11	- 11
Paper and Printing (135)	65	64	+ x	- 4	- 4	162	162	- x	+ x	+ 1	59	59	- x	- 8	- 7
Paper and Pulp	49	48	+ x	+ 1	+ x	154	159	- 3	+ 4	+ 7	39	40	- 1	- 4	- 2
Printing and Publishing	75	75	- 1	- 5	- 5	168	167	+ x	- 2	- 1	67	67	+ x	- 7	- 6
Miscellaneous	65	65	- x	- 6	- 6	157	155	+ 1	- x	+ x	65	65	+ x	- 10	- 9
Rubber Products (53)	63	64	- 1	- 14	- 13	154	154	- x	- 14	- 12	57	58	- 1	- 20	- 18
Tires and Tubes	47	48	- 2	- 10	- 7	101	102	- 1	- 12	- 10	35	35	- 2	- 17	- 14
Miscellaneous	73	73	- 1	- 16	- 15	196	196	+ x	- 15	- 13	76	77	- 1	- 21	- 19
Stone, Clay, and Glass Products (93)	74	73	+ x	- 2	- 4	184	180	+ 2	+ 2	+ 1	80	79	+ 1	- 4	- 6
Brick and Tile	53	50	+ 6	- 11	- 11	113	104	+ 9	- 3	- 5	54	50	+ 8	- 11	- 13
Glass	79	79	+ x	+ x	- 5	183	179	+ 2	+ 3	- x	79	78	+ 1	- 2	- 5
Vitreous & Semi-vit. China & Pottery	57	57	+ x	- 1	- 1	172	171	+ x	+ 2	+ 9	88	87	+ 1	- 3	- 2
Miscellaneous	83	84	- 1	- 4	- 3	213	212	+ 1	- 8	+ 1	86	86	- 1	- 9	- 7
Textiles (37)	72	72	+ x	- 6	- 7	114	111	+ 3	- 3	- 6	72	70	+ 2	- 9	- 11
Men's Clothing	81	81	+ 1	- 4	- 4	114	108	+ 5	- 2	- 6	74	70	+ 6	- 9	- 12
Miscellaneous	67	68	- x	- 7	- 9	119	118	+ x	- 4	- 6	71	72	- 1	- 9	- 10
Vehicles (62)	70	66	+ 7	- 26	- 28	173	155	+ 12	- 80	- 34	62	57	+ 9	- 32	- 36
Autos and Parts	76	69	+ 10	- 31	- 35	193	166	+ 16	- 85	- 41	66	59	+ 13	- 38	- 42
Cars, Electric and Steam Railway	95	110	- 14	- 14	- 2	206	237	- 13	- 8	+ 1	82	97	- 15	- 16	- 4
Miscellaneous	61	61	+ x	+ 21	+ 24	140	141	- 1	+ 33	+ 35	61	62	- 2	+ 18	+ 21
Miscellaneous Manufacturing (57)	63	64	- 1	- 7	- 7	146	149	- 2	+ 4	+ 6	60	61	- 2	- 7	- 5
Total Trade, Service, and Utilities^a (705)	101	100	+ 1	- 1	- x	234	229	+ 2	+ 7	+ 7	103	102	+ 2	- 1	+ x
Service (208)	119	119	- x	+ 3	+ 4	253	251	+ 1	+ 11	+ 12	132	132	+ x	+ 4	+ 4
Trade, Retail and Wholesale (388)	89	87	+ 2	- 3	- 3	200	192	+ 4	+ 3	+ 3	86	84	+ 3	- 4	- 3
Transportation & Public Utilities (109)	109	108	+ x	- x	- x	298	296	+ 1	+ 8	+ 8	108	107	+ 1	- x	- 1
Construction (346)	59	59	+ x	- 5	+ 4	153	157	- 3	+ 5	+ 21	54	55	- 1	- 2	+ 12
Mines and Quarries (28)	126	122	+ 3	+ 1	- 1	282	276	+ 2	+ 10	+ 9	79	77	+ 3	+ 1	- 1

Indexes of number employed and of payrolls are based on the employment of 496,903 persons (production workers in manufacturing and mining, construction workers in contract construction, and nonsupervisory employees in other categories) in 2,365 firms; indexes of man-hours, on the employment of 482,923 production workers and nonsupervisory employees in 2,265 firms. Figures in parentheses show number of firms reporting employment and payrolls. In some cases fewer firms report man-hours. Data do not include agriculture, government, education, or public institutions. For sources and footnotes, see below.

FOOTNOTES FOR BULLETIN TABLES AND CHARTS

+Change in number of failures; *Figures in parentheses show number of firms reporting this month; *a. Current data not available; *b. Comparable data not available; *c. Only percentage of change available; *d. Adjusted for seasonal change; *e. Adjusted for number of working days; *f. Four weeks average; *g. Annual rate; *h. Preliminary; *i. Revised; *j. Series revised; *k. Weighted; *l. Less than 0.5 percent; *m. More than 1,000 percent increase.

Primary Sources:

Computed from: *Center for Business and Economic Research multiple regression model.

Computed from original data collected by the Center for Business and Economic Research from: *Ohio retailers; *County Clerks of Courts; *Local Power and Light Companies.

Computed by the Center for Business and Economic Research from data supplied by: *Board of Governors of the Federal Reserve System;

*Life Insurance Marketing and Research Association; *Division of Research and Statistics of the Ohio Bureau of Employment Services, collected in cooperation with the Bureau of Labor Statistics, U.S. Department of Labor; *Federal Power Commission; *F. W. Dodge Division, McGraw-Hill Information Systems Company; *Dun & Bradstreet, Inc.

Other data sources: *Federal Reserve Board; *Dun & Bradstreet, Inc.; *U.S. Department of Commerce; *Division of Research and Statistics of the Ohio Bureau of Employment Services; *U.S. Department of Labor; *Department of Agricultural Economics, O.S.U.; *U.S. Department of Agriculture; *American Iron and Steel Institute; *U.S. Department of Energy; *National Machine Tool Builders' Association; *F. W. Dodge Division, McGraw-Hill Information Systems Company; *R. L. Polk & Co.; *Standard & Poor's Corporation.

Note: In the Ohio-U.S. table, page S-2, dual source notes on a single line of the table stub refer first to Ohio data, second to U.S. data.

Ohio Retail Sales Trends

Sales of Ohio Retailers in March rose 12 percent above February sales, but were down 4 percent from sales in year-ago March. After adjustment for seasonal variation, the current March-from-February relationship showed a 3 percent decline.

For the First Quarter of 1980, total retail sales were 3 percent higher than sales in the first quarter of 1979.

By Kind of Business, the upward sales movement in March from February among 17 of the 23 categories shown individually was led by family clothing stores (+57 percent), shoe stores (+45 percent), and department stores (+44 percent). The largest declines in the 11 categories experiencing lower sales this March than in March 1979 were, as might be expected, by motor vehicle dealers (-28 percent) and lumber-building materials dealers (-20 percent). Through the first quarter of 1980, all but 5 kinds of business maintained higher sales levels than first-quarter sales in 1979. Again, the greatest decline in the current period was in sales by motor vehicle dealers—down 13 percent.

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INDEXES OF OHIO RETAIL SALES

KIND OF BUSINESS	UNADJUSTED INDEX (1967-69 = 100)		CHANGE				
	Mar. 1980 (p)	Feb. 1980 (r)	Mar. 1980 from Feb. 1980		Mar. 1980 from Mar. 1979		3 months from Mar. 1979
			Not Seas. Adj.	Seas. Adj.	Not Seas. Adj.	Seas. Adj.	
Total Retail Stores^{a, w}	282	252	+12	-3	-4	+3	%
Grocery Stores	329	310	+6	-2	+7	+11	
Other Food Stores	337	369	-9	-15	-7	+12	
General Stores (With Food)	171	174	-2	-15	+33	+38	
Department Stores	258	179	+44	+12	+6	+3	
Other General Merchandise	240	231	+4	-14	+10	+19	
Men's Clothing-Furns. Strs.	93	99	-6	-12	-3	+1	
Family Clothing Stores	152	97	+57	+5	+18	+5	
Women's Ready-to-Wear Strs.	124	102	+22	-8	-3	-2	
Shoe Stores	110	76	+45	-1	-6	+1	
Furniture Stores	248	215	+15	+4	-7	+6	
Household Appl.-TV-Rdio Strs.	193	173	+12	+14	+10	+4	
Home Furnishings Stores	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	
Motor Vehicle Dealers	306	296	+4	-13	-28	-13	
Other Automotive	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	
Filling Stations	456	331	+37	+21	+15	+8	
Lumber-Bldg. Matls. Dealers	188	183	+3	-19	-20	+x	
Paint, Glass & Wallpaper Strs.	162	153	+6	-23	+x	+20	
Heat.-Plumb. & Elec. Sup. Strs.	229	238	-7	-9	+30	+29	
Hardware Stores	203	181	+12	-7	-1	-1	
Farm Equipment Dealers	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	
Eating & Drinking Places	217	190	+14	+4	-1	+4	
Drug Stores	264	309	-15	-18	-x	+10	
Jewelry Stores	153	152	+1	-3	+9	+16	
Florists	151	205	-26	-50	+1	-2	
Fuel Dealers	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	
Hay-Feed, Farm & Grdn. Strs.	518	370	+40	+9	+3	-3	
State Liquor Stores	157	149	+5	-5	-1	+3	

For sources and footnotes, see page S-3.



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